national STATISTICS

Spring | 2007
No 33
ISSN 1465–1645

Health Statistics Quarterly

- Trends and geographical variations in alcohol-related deaths in the United Kingdom, 1991–2004
- Pilot linkage of NHS Numbers for Babies data with birth registrations
- Teenage conceptions by small area deprivation in England and Wales, 2001–2002

Reports: Conceptions in England and Wales, 2005; Health expectancies in the United Kingdom, 2003; Deaths involving *Clostridium difficile*: England and Wales, 2001–2005; Deaths involving MRSA: England and Wales, 2001–2005; Deaths related to drug poisoning: England and Wales, 1993–2005

Annual Updates:
2005 Mortality statistics: cause (England and Wales; Congential anomaly statistics: notifications, 2005, England and Wales

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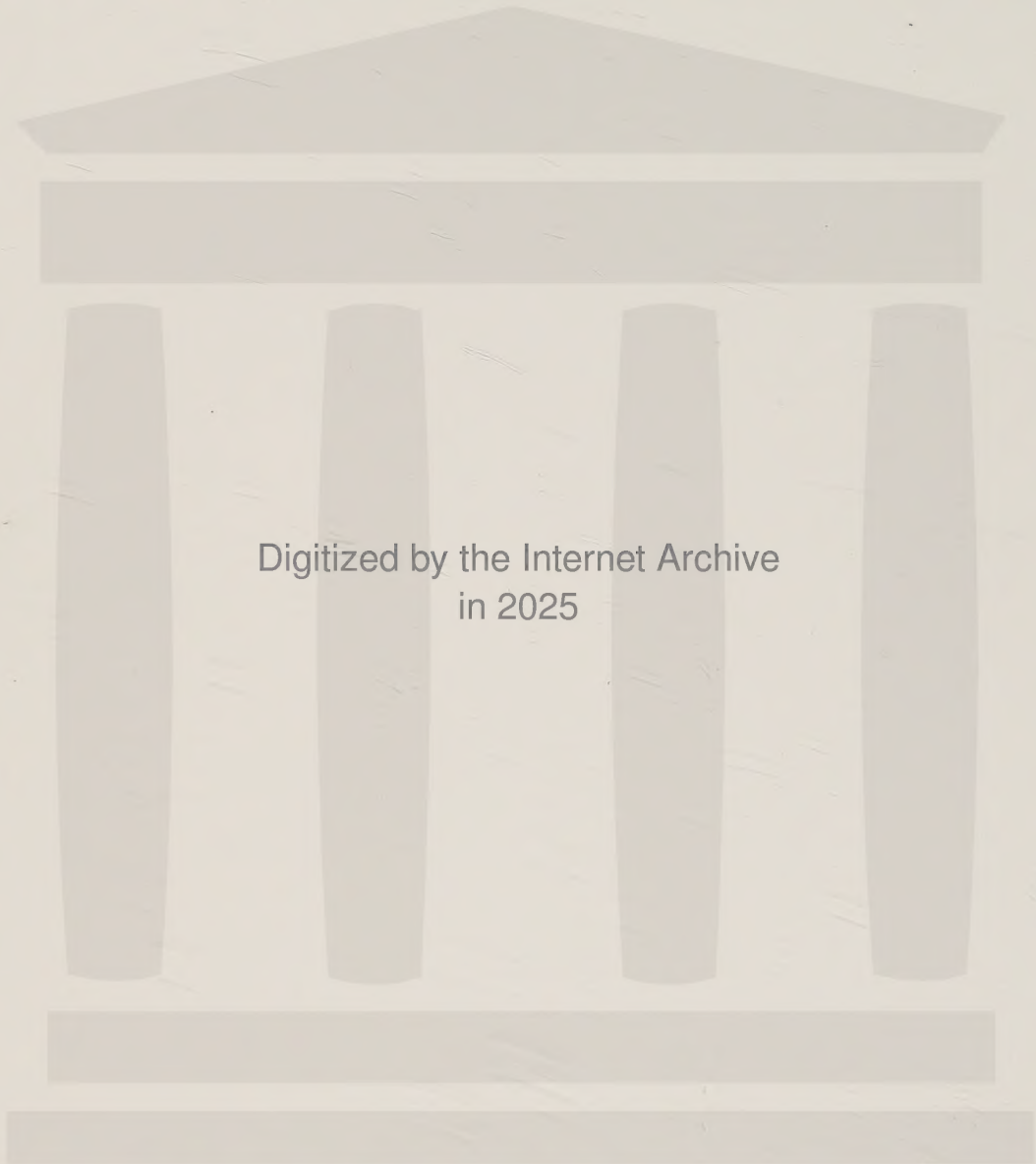

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Spring 2007

No 33

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Health Statistics Quarterly

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The Office for National Statistics (ONS) is the Government Agency responsible for compiling, analysing and disseminating many of the United Kingdom's economic, social and demographic statistics, including the retail prices index, trade figures and labour market data, as well as the periodic census of the population and health statistics. It is also the agency that administers the statutory registration of births, marriages and deaths in England and Wales. The Director of ONS is also the National Statistician and the Registrar General for England and Wales.

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Health Statistics Quarterly and Population Trends are journals of the Office for National Statistics. Each is published four times a year in February, May, August and November and March, June, September and December, respectively. In addition to bringing together articles on a wide range of population and health topics, *Health Statistics Quarterly and Population Trends* contain regular series of tables on a wide range of subjects for which ONS is responsible, including the most recently available statistics.

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Title \ Issue	Spring	Summer	Autumn	Winter
Health Statistics Quarterly	by 11 Sept	by 11 Dec	by 22 Mar	by 21 June
Population Trends	by 23 Oct	by 2 Feb	by 4 May	by 26 July

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ISBN 978-0-230-52596-2

ISSN 1465-1645

in brief

Census 2011: Questions to be included in the 2007 test

The questionnaires to be used in the Census Test in England and Wales were published in late 2006.

Following user consultation in 2005, ONS launched a programme of question development and testing, to ensure that the 2011 Census meets as many user requirements as possible. New questions have been developed for topics where there is a new demand for information, and existing questions have been redeveloped to account for increasing or changing user requirements. The first major milestone in this development programme is the 2007 Census Test, where the newly developed questions will be used on a large scale for the first time. The Test will be held on 13 May 2007.

To meet all user requirements for information, the 2011 Census would have to ask significantly more questions than is possible. As ONS is not yet in a position to decide the final census content, the 2007 Census Test will include a wide range of possible new questions to help inform the final selection process.

To achieve this, the questionnaire to be used includes an extra page of questions per respondent than was asked in the 2001 Census, or is likely for the 2011 Census. In addition to this, a number of existing questions that are being considered for the 2011 Census, but that are unlikely to change significantly before then, have been excluded to maximise the space available to test the new questions.

New questions to be tested include:

- National identity – to allow respondents to record their English, Welsh, Scottish, Northern Irish, Irish or other identity.
- Income – to collect level and sources of income.
- Language – to collect information on proficiency in English, Welsh, British Sign Language and other languages. In Wales, people will be asked about the frequency of their use of the Welsh language.
- Second address – to identify the number of people with a regular second address and the purpose and frequency of its use.
- Month and year of entry into UK – to collect extra information about international migration.

Redeveloped questions to be tested include:

- Illness and Disability – expanded to collect information on the nature of illness and disability.
- Marital or civil partnership status – expanded to include civil partnership equivalent for each marital status.

Each question included in the 2007 Census Test will be evaluated to assess the quality of information that can be collected and the public acceptability of the topic. The final questionnaire for the 2011 Census will include a selection of questions from the questionnaires used in the 2007 Census Test, some from the 2001 Census excluded from the Test and others developed through a programme of small-scale testing. The analysis of the 2007 Census Test will be used to inform this selection.

Following the Test there will be a Census Rehearsal in 2009, before the proposed questions are put forward to Parliament in 2009.

For more information, including a paper summarising the development work completed, the timetable for finalising questionnaires for the 2011 Census and ONS' view on possible Census content, see www.statistics.gov.uk/census2001/cn_154.asp

ONS review of Vital Statistics outputs

ONS is currently carrying out a review of published outputs for births, deaths, marriages, divorces and adoptions which includes examining the scope, format and content of Annual Reference Volumes. Proposals being considered include publishing most mortality statistics based on year of registration rather

than year of occurrence, and changes to improve the timeliness of the data. ONS is keen to hear the views of users on these proposed changes and shortly will be issuing a consultation document. The consultation document will be found at www.statistics.gov.uk/about/consultations/open.asp

Latest UK suicide figures released

Latest figures on adult suicide rates in the UK in 2005 were released on 22 February 2007. These show that suicide rates for men aged 15 and over continue to decline. In 1991 there were 21.0 suicides per 100,000 population but by 2005 this had decreased to 17.5 per 100,000 (Figure 1). Suicide rates for women remained more stable during this period. The rate for women in 2005 (5.8 suicides per 100,000 population) was the same as in 2001–2003 but a slight decline from the 2004 figure of 6.1 per 100,000. The number of adult suicides in the UK fell from 6,317 in 1991 to 5,671 in 2005.

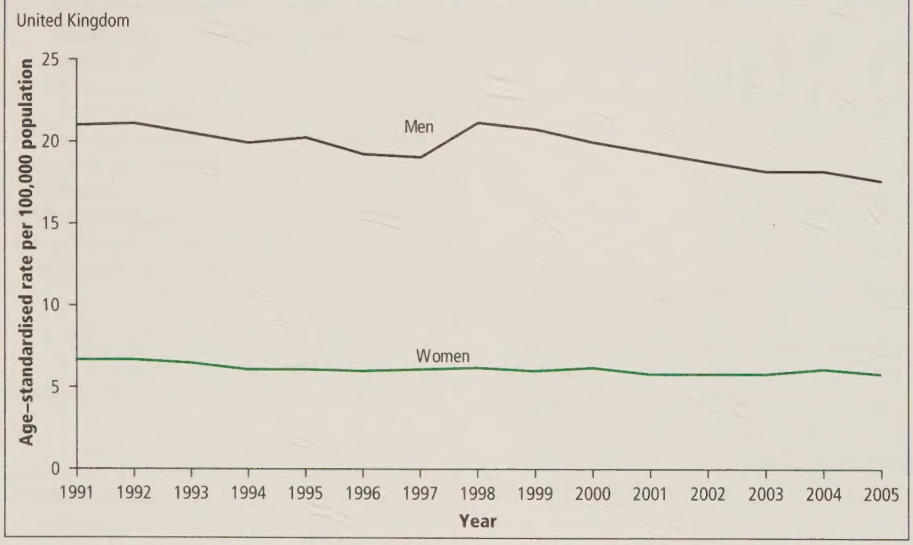
These figures have been released on the National Statistics website: www.statistics.gov.uk/cci/nugget.asp?id=1092

Information has also been published there on trends in age-specific suicide rates in the UK.

These data replace suicide rates previously published in August 2006. Those figures were based on rates published in an article in *Health Statistics Quarterly* 31 on suicide trends and geographical variations in the UK from 1991 to 2004. Since publication it has been discovered that the calculation of some mortality rates was not based on the most recent population estimates. This error has now been corrected. Rates for England, Government Office Regions in England, and Wales were affected for the years 1993–2000 and 2002. Rates for Scotland and Northern Ireland were not affected but figures for the UK have been revised following the corrections for England and Wales. Suicide rates for local areas in the UK which were also published in *Health Statistics Quarterly* 31 have not required amendment.

These revisions have not affected the trend data for suicide rates previously reported for the UK. The corrections have however resulted in minor amendments to age-specific rates reported for English regions and Wales. Full details of the corrections and the revised data can be found with the latest figures for 2005 on the National Statistics website: www.statistics.gov.uk/statbase/Product.asp?vlnk=13618

Figure 1 Adult suicide rates, 1991–2005



Corrections to disability-free life expectancy figures in *Health Statistics Quarterly* 29

Health Statistics Quarterly 29 contained two pieces on health expectancies – an article 'Health expectancies in the UK and its constituent countries, 2001' releasing 2001 figures and a report 'Health expectancies in the UK, 2002' releasing 2002 figures. Small calculation errors have since been found in disability-free life expectancy (DFLE) estimates for Northern Ireland for both 2001 and 2002. This has affected three estimates of DFLE for Northern Ireland in each year and one UK estimate in 2002. The correct figures differ by 0.1 years from those published.

The correct figures have been placed on the website at: www.statistics.gov.uk/StatBase/Product.asp?vlnk=12964
If you have any queries about this please contact 020 7533 5244

Recent Publications

Cancer Registration statistics: England, 2004 *(December, available at www.statistics.gov.uk/statbase/ product.asp?vlnk=7720).*
Conception statistics: England and Wales, 2004. Supplement to FM1 No.34 *(December, available at www.statistics.gov.uk/StatBase/Analysis.asp?vlnk=18).*
Congenital anomaly statistics: notifications, England and Wales, 2004. Series MB3 No.20 *(December, available at www.statistics.gov.uk/statbase/ product.asp?vlnk=5799).*
Drinking: adult's behaviour and knowledge in 2005 *(November, available at www.statistics.gov.uk/cci/article.asp?ID=1688).*
Health consultation: measuring performance in our public services *(December, available at www.statistics.gov.uk/about/data/methodology/specific/publicsector/output/health_consultation.asp).*
Mortality statistics: cause, England and Wales, 2005. Series DH2 No.32 *(December, available at www.statistics.gov.uk/statbase/ product.asp?vlnk=6188).*
Population Trends 126 *(Palgrave Macmillan, £27.50, December, ISBN 978-0-230-00231-7).*

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Health indicators

England and Wales

Figure A Population change (mid-year to mid-year)

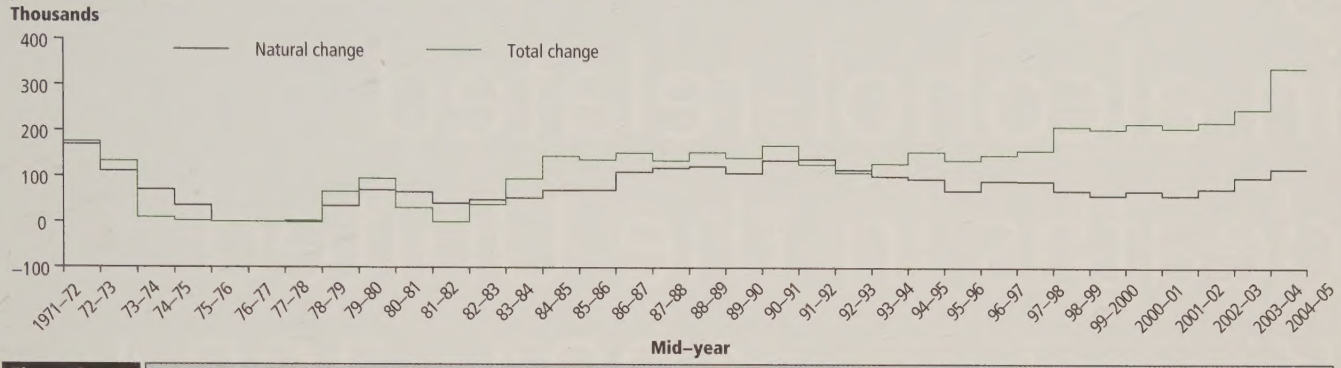


Figure B Age-standardised mortality rate[1]

Figure C Infant mortality (under 1 year)

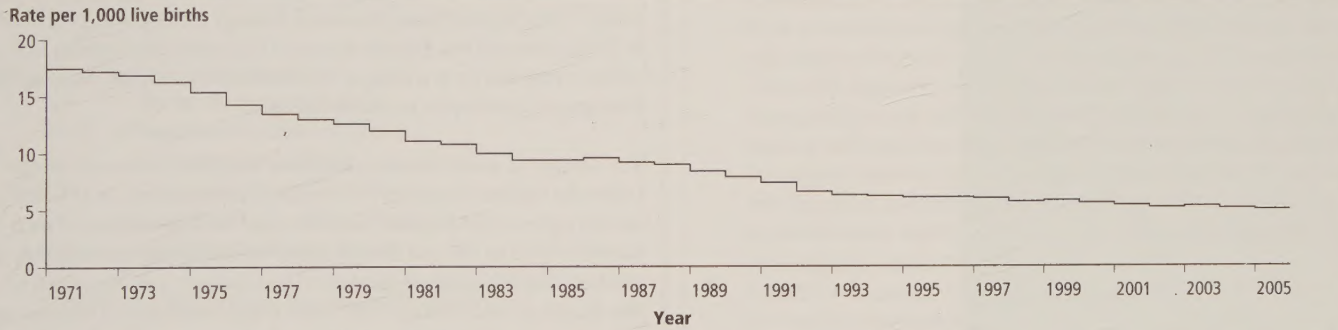
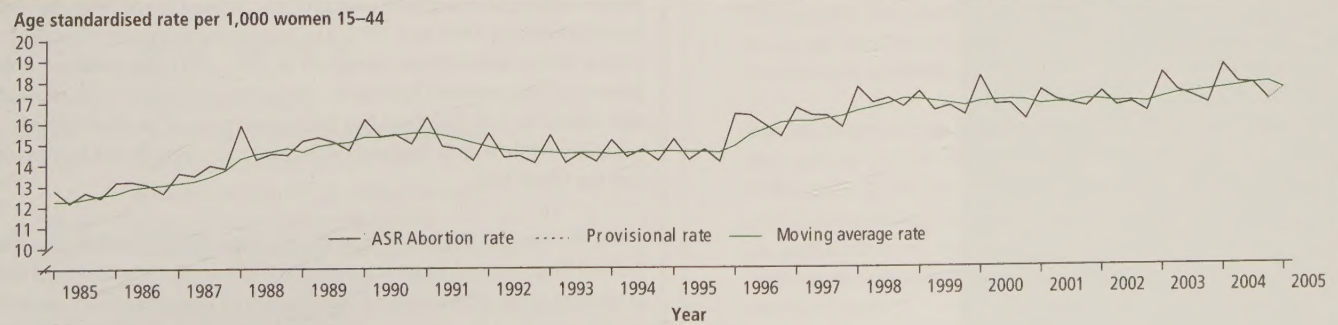


Figure D Age-standardised quarterly abortion rates – residents[2]



[1] The age-standardised mortality rate for 2004 is based on mid 2004 population estimates published on the 25 August 2005.

[2] Rates for 2004 and March quarter 2005 are based on 2004 population projections.

Trends and geographical variations in alcohol-related deaths in the United Kingdom, 1991–2004

Claudia Breakwell, Allan Baker and Clare Griffiths, *Office for National Statistics;* **Graham Jackson,** *General Register Office for Scotland;* **Gillian Fegan and David Marshall,** *Northern Ireland Statistics and Research Agency*

Alcohol-related deaths in the UK increased substantially between 1991 and 2004, from 4144 to 8221. Overall rates increased in all parts of the UK. There were, however, large differences in rates between countries and regions. This article presents these differences and also looks at patterns of alcohol-related mortality by deprivation within England and Wales. The article considers changes over time for males and females and for different age groups.

Introduction

There has been an increase in concern about alcohol consumption and the associated risks in recent years. It has been widely reported that alcohol misuse is associated with poor health, violent crime and premature death.[1–3] The Alcohol Harm Reduction Strategy for England, published in 2004, estimated that alcohol misuse in England is now costing £20 billion a year and up to a third of all attendances at hospital Accident and Emergency departments are alcohol-related.[4]

The number of alcohol-related deaths has long been monitored by the Office for National Statistics (ONS) and its predecessors. In 1840 the second report of the Registrar General noted the total number of such deaths in 1838 as 182 and also described the increasing consumption of alcohol.[5] Historic trends in alcohol-related diseases were described in *The Health of Adult Britain 1841–1994* which noted that an increase in the consumption of alcohol in the nineteenth century was reversed by the introduction of licensing controls in 1874.[1] Rates of alcohol-related mortality were associated with trends in alcohol consumption; per capita consumption declined until after the Second World War and then doubled between 1945 and 1979. The geographical pattern of alcohol-related deaths in the United Kingdom in 1991–1997 was analysed in the Decennial Supplement *Geographic Variations in Health*.[6] This showed that within the UK, Scotland had the highest rates of alcohol-related mortality while within England the highest rates were found in London and the North West.

ONS, the General Register Office for Scotland (GROS) and the Northern Ireland Statistics and Research Agency (NISRA) all code causes of death according to the International Classification of Diseases (ICD). An article which examined the impact of the introduction of the Tenth Revision of

the ICD (in England and Wales) concluded that it was necessary to review the definition of alcohol-related deaths used by ONS.[7] After consultation, the definition of alcohol-related deaths (which includes causes regarded as most directly due to alcohol consumption) was revised. ONS has agreed with GROS and NISRA that this National Statistics definition will be used to report alcohol-related deaths for the UK.[8]

This article updates previous analysis carried out at local authority level in the UK covering the period 1991–1997,[6] by recalculating rates based on the revised definition of alcohol-related deaths and also using updated population estimates for the UK which were revised to take into account results from the 2001 Census. Alcohol-related death rates have also been calculated for a subsequent seven year period (1998–2004), to see if there have been changes over time in the geographical distribution of alcohol-related deaths in the UK.

Research has shown an association between deprivation and certain causes of death, for example a recent article in *Health Statistics Quarterly*[9] showed that those living in the most deprived areas had higher death rates compared to those living in the least deprived areas. This article presents an analysis of the relationship between deprivation and alcohol-related deaths in England and Wales for 1999–2003.

Methods

Definitions

The National Statistics definition of alcohol-related deaths used in this article only includes those causes regarded as being most directly due to alcohol consumption (Box One). It does not include other diseases where alcohol has been shown to have some causal relationship, such as cancers of the mouth, oesophagus and liver. The definition includes all deaths from chronic liver disease and cirrhosis (excluding biliary cirrhosis), even when alcohol is not specifically mentioned on the death certificate. Apart from deaths due to poisoning with alcohol (accidental, intentional or undetermined), this definition excludes any other external causes of death, such as road traffic and other accidents. The definition allows for consistent comparisons over time for those deaths most clearly associated with alcohol consumption.

Mortality data

Mortality data used in this article are based on deaths registered in each calendar year. These data are collected and processed by ONS for England and Wales, the GROS for Scotland, and the General Register Office for Northern Ireland, which is part of NISRA. These countries have different systems of death registration which are described briefly in Box Two.

Deaths in the UK with an underlying cause regarded as being alcohol-related according to the National Statistics definition were extracted from the mortality databases at ONS, GROS, and NISRA. For England and Wales, and Northern Ireland, for the years 1991–2000 these are deaths coded according to the International Classification of Diseases, Ninth revision (ICD-9) and for the years 2001–2004 the Tenth revision (ICD-10). For Scotland ICD-10 was introduced in 2000.

Box one

National Statistics definition of alcohol-related deaths

International Classification of Diseases, Ninth Revision

291	Alcoholic psychoses
303	Alcohol dependence syndrome
305.0	Non-dependent abuse of alcohol
425.5	Alcoholic cardiomyopathy
571	Chronic liver disease and cirrhosis (Excluding 571.6 – Biliary cirrhosis)
E860	Accidental poisoning by alcohol

International Classification of Diseases, Tenth Revision

F10	Mental and behavioural disorders due to use of alcohol
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
I42.6	Alcoholic cardiomyopathy
K29.2	Acoholic gastritis
K70	Alcoholic liver disease
K73	Chronic hepatitis, not elsewhere classified
K74	Fibrosis and cirrhosis of liver (Excluding K74.3–K74.5 – Biliary cirrhosis)
K86.0	Alcohol induced chronic pancreatitis
X45	Accidental poisoning by and exposure to alcohol
X65	Intentional self-poisoning by and exposure to alcohol
Y15	Poisoning by and exposure to alcohol, undetermined intent

Box two

Registration, coding and analysis of alcohol-related deaths in England and Wales, Scotland and Northern Ireland

In England and Wales, by law, a death should be registered 'before the expiration of five days from the date of the death.' In the case of sudden deaths, if a coroner needs to hold an inquest before reaching a verdict, this is almost impossible as in most cases the death can only be registered after the inquest. In 2004, 35 per cent of alcohol-related deaths were certified by a coroner, 11 per cent after an inquest and 24 per cent with a post mortem only.

In Scotland, by law, a death must be registered within eight days. Certain sudden or suspicious deaths are referred to the Procurator Fiscal for possible investigation, but this does not delay the initial registration of the death. Cause of death is coded using the information supplied by the certifying doctor. The Procurator Fiscal may subsequently provide GROS with more accurate information on the cause of death and, if necessary, the death will be recoded taking this into account. However, no changes to the statistical records are made after the end of June following the year of registration. Around half of all alcohol-related deaths are referred to the Procurator Fiscal, though in the majority of cases the underlying cause of death is not changed. Around 35–40 per cent of alcohol-related deaths are the subject of a post mortem examination.

In Northern Ireland, Deaths in Northern Ireland are registered in a similar manner to England and Wales but with coroners reporting a finding rather than a verdict. Over the period 1991–2004, 41 per cent of alcohol related deaths were certified by a coroner and a further 5 per cent were certified by a coroner after an inquest.

The data analysed in this article are based on deaths registered in each calendar year. The definition adopted within this article is broad in that almost all cirrhosis deaths are included regardless of whether alcohol was specifically mentioned. This should mean that the data are comparable between countries regardless of any difference in the likelihood of alcohol being mentioned introduced by the differences described above.

Mortality analysis

Alcohol-related death rates are reported for single years from 1991 to 2004 for the UK, in three-year moving averages for constituent countries and English regions, and in two seven-year periods for local areas (1991–1997 and 1998–2004). Rates for broad age bands are also reported for the same periods.

The rates that appear in this article have been directly age-standardised. This makes allowances for differences in the age structure of populations so that results can be compared over time and between areas and sexes. Rates were age-standardised using the European Standard Population[10] and this was done both for alcohol-related deaths at all ages and within broad age groups (15–34, 35–54, 55–74, and 75 and over). The age group 0–15 was not examined due to the small number of deaths involved. Within small populations, the number of deaths may be subject to random variation. Therefore 95 per cent confidence intervals have been calculated for all rates presented in this article using standard methods.[11]

The lowest geographical level analysed was Local and Unitary Authorities in England and Wales, Council Areas in Scotland, and Parliamentary Constituencies in Northern Ireland. These smaller areas are referred to throughout this article as 'local areas'. Deaths throughout the period 1991–2004 were assigned to current local area boundaries.

Alcohol-related death rates were calculated for all local areas in the UK for the two periods 1991–1997 and 1998–2004. These rates are presented in the form of charts and maps in this report, however areas with fewer than ten deaths in each seven year period have been excluded to ensure that the rates are robust. This is consistent with previous analyses.[6, 12] The numbers of alcohol-related deaths, and rates with 95 per cent confidence intervals can be found on the National Statistics website.[13]

Maps 1–4 indicate where alcohol-related death rates in local areas were above or below the UK rate, based on the ratios divided into bands (Box Three). The maps have coloured hues for higher ratios and grey hues for lower ratios – the depth of shading indicating the extent of the difference. The white areas are where the rate was less than 25 per cent higher or lower than the UK rate and the cross-hatched areas are those where there were fewer than ten deaths across each period and which were therefore excluded from the analysis.

Box three

Maps 1–4 show the ratio of the alcohol-related death rate to that of the United Kingdom by sex and time period for:

- Local/unitary authority of England and Wales
- Council Area of Scotland
- Parliamentary Constituency of Northern Ireland

The colouring is based on five intervals as defined by values of 25 per cent and 50 per cent or more above or below the UK rate as shown below:

Colour	Min ratio value	Max ratio value	Legend label
	1.50	--	50 per cent or more higher
	1.25	1.49	25–49 per cent higher
	0.76	1.24	Less than 25 per cent higher or lower
	0.51	0.75	25–49 per cent lower
	0.00	0.50	50 per cent or more lower
			Fewer than 10 deaths

Population Estimates

The mortality rates in this article were calculated using revised population estimates for the UK, based on results from the 2001 Census.[14] In England and Wales these were estimates for 1991 published in Spring 2003, revised mid-year population estimates for 1992–2002 published in Autumn 2004, and estimates for 2003 and 2004 published in September 2004 and December 2005 respectively. In Scotland, population estimates for the years 1991–2000 were revised following the 2001 Census.[15] In Northern Ireland, estimates were revised for the years 1992–2000.[16]

Area of residence and non-residents

The results for countries, regions and local areas are based on the area of usual residence of the deceased. This information is collected at death registration from the informant who registers the death.

Alcohol-related death rates presented for the UK as a whole include deaths of non-residents as well as residents. However, if a death was registered in a different UK country to the one which the deceased was resident (for example, if the death occurred in Scotland and the deceased lived in England), the death was treated as a non-resident death and was not included in the figures for either country. This was not the case for deaths of residents of England that occurred in Wales and vice-versa, since England and Wales are covered by a single registration system. Deaths occurring outside the UK are not included.

Deprivation analysis

The deprivation analysis was carried out for England and Wales only as comparable deprivation scores for all countries of the UK were not available.[17] To consider the relationship with deprivation, all alcohol-related deaths in England and Wales from 1999–2003 were allocated to the 2001 Census Standard Table ward of the deceased's usual residence. Each ward was then assigned a deprivation score using the Carstairs and Morris index. These scores were calculated by ONS using data from the 2001 Census and were published on the National Statistics website in 2005.[18] The calculation of the Carstairs scores is described in an earlier article which also presented the geographical pattern of deprivation across England and Wales in 2001.[17]

Using the Carstairs scores, wards were ranked from least deprived to most deprived then divided into deprivation twentieths (5 per cent of the population) and fifths or quintiles (20 per cent of the population). This was done using 2001 experimental ward population estimates which had also been published by ONS for 2001 Census wards.[19] Wards were divided into twentieths and fifths to give equal population size (rather than number of wards) in each deprivation category. Quintile 5 therefore represents the fifth of the population of England and Wales living in the most deprived wards, while Quintile 1 represents the fifth of the population living in the least deprived areas.

Alcohol-related death rates were calculated by aggregating deaths within wards to deprivation quintiles and twentieths. Deaths from 1999–2003 were selected to provide data two years either side of 2001 – the census year the Carstairs scores were based on and the first year for which ONS ward population estimates were available. 2001 ward population estimates were also aggregated to provide denominators. In this article alcohol-related death rates for England and Wales are presented in twentieths while the rates for English regions and Wales are presented

in quintiles. The quintiles were assigned at a national level rather than for each region. For example, Quintile 5 for the South West does not represent the most deprived fifth of the population within the area. Instead it represents those in the South West who were living in wards classified as among the most deprived fifth of areas in England and Wales. The proportions of the population in each deprivation quintile therefore vary across regions.[17]

Results

Trends in alcohol-related deaths in the UK, 1991–2004

There were over 8,000 alcohol-related deaths in the United Kingdom in 2004, nearly double the 1991 total. In 2004, alcohol-related deaths accounted for nearly 1.5 per cent of all deaths in the UK compared with 0.6 per cent in 1991. Sixty per cent of alcohol-related deaths in 1991 were among males, and this proportion had increased to 66 per cent by 2004.

Male and female alcohol-related death rates showed a similar pattern of increase between 1991 and 2004 (Figure 1). But the death rate for males was much higher than for females and the gap between the sexes widened over time. In 2004 the male death rate, at 17.6 per 100,000 population, was more than twice the rate for females (8.3 deaths per 100,000).

For males, the death rates in all age groups increased between 1991 and 2004 (Figure 1). While among the 35–54 and 55–74 age groups there was a steady increase over the whole period, the trend in the death rate for men aged 75 and over showed more variability. Men aged 55–74 had the highest death rate in each year and this rate increased by around four fifths between 1991 and 2004, from 23.4 to 42.6 deaths per 100,000. In 2004 men aged 35–54 had the second highest rate of alcohol-related deaths at 29.5 deaths per 100,000 and this rate showed the highest relative increase over the period, more than doubling from 13.4 in 1991. This rate exceeded the rate for men aged 75 and over from 1996 onwards.

Death rates by age group for females were consistently lower than the corresponding rates for males, but the trends showed a broadly similar pattern by age (Figure 1). Women aged 55–74 had the highest death rate in each year. The rate for women aged 35–54 nearly doubled between 1991 and 2004, from 7.2 to 14.2 deaths per 100,000 population, a larger increase than the rate for women in any other age group.

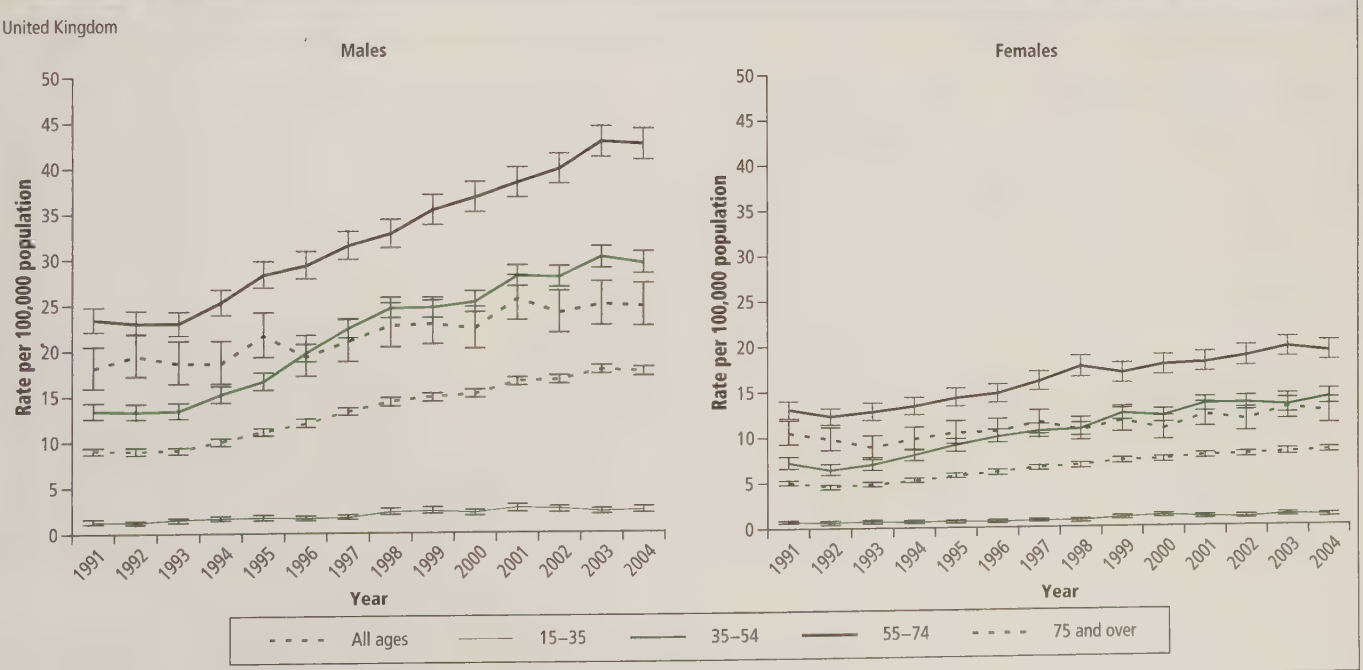
Alcohol-related death rates in the countries of the UK and regions of England, 1991–2004

For both males and females, Scotland had alcohol-related death rates which were consistently higher than for all other constituent countries of the UK across the period 1991/93 to 2002/04 (Figure 2). Male alcohol-related death rates in Scotland were 80 per cent higher than the overall UK rate in 1991/93, and consistently more than double the overall UK rate between 1994/96 and 2002/04. The alcohol-related death rate for males in Northern Ireland was also higher than the overall UK rate from 1996/98 onwards.

The trends in the female alcohol-related death rate across the UK showed a similar pattern to those for males, but the increases over time were smaller. The female alcohol-related death rate in Scotland rose from 8.1 deaths per 100,000 population in 1991/93 to 15.7 in 2002/04. The gap between the alcohol-related death rate for females in Scotland and the overall rate for females in the UK increased over the period from 69 per cent in 1991/93 to 94 per cent in 2002/04. From 1993/95 onwards, females in Scotland had a higher alcohol-related death rate than males in England. Rates for females in England were lower than the overall UK rates for most of the period, while rates for females in Wales were similar to the UK. The rates for females in Northern Ireland rose above the UK rates between 1992/94 and 1995/97 and from 1999/2001 onwards.

Within England, all regions showed an increase in the rate of alcohol-related deaths between 1991/93 and 2002/04 for both males and females (Appendix 1). For males, London and the North West were among the

Figure 1 Age-standardised alcohol-related death rates: by sex and age group, 1991–2004



regions with the highest alcohol-related death rates across the period 1991/93 to 2002/04. The North East, saw a large increase from 8.6 in 1991/93 to 18.6 deaths per 100,000 in 2002/04 . The rate for males in the West Midlands more than doubled to 17.8 deaths per 100,000 in 2002/04 from 8.0 in 1991/93 and this was the only other region to have a rate higher than the UK rate in 2002/04. Rates for males in Yorkshire and the Humber and the East Midlands also more than doubled between 1991/93 and 2002/04, but remained among the regions with the lowest alcohol-related death rates.

For females, the North West was the only region in England to have a consistently higher rate of alcohol-related deaths than the UK as a whole across the period 1991/93 to 2002/04. The rate for females in London was among the regions with highest alcohol-related death rate in 1991/93 (5.6 deaths per 100,000), but by 2002/04 it was among the lowest (6.9 deaths per 100,000). The trend in the North East was the opposite, starting at 4.1 deaths per 100,000 in 1991/93 and rising to 9.5 in 2002/04. Rates in Yorkshire and the Humber, East Midlands, the South East, South West and the East of England were consistently lower than elsewhere.

Male alcohol-related death rates by age in the countries of the UK and regions of England, 1991–1997 and 1998–2004

For men aged 15–34, alcohol-related death rates were generally low and their confidence intervals wide, however the UK rate increased by 60 per cent from 1.5 to 2.4 deaths per 100,000 population between 1991–1997 and 1998–2004 (Figure 3a). Scotland had the highest alcohol-related death rate in this age group for both periods, 2.3 deaths per 100,000 in 1991–1997 and 5.1 deaths per 100,000 in 1998–2004. Northern Ireland, Wales and the North West also had rates which were higher than the overall UK rate in both time periods. Rates in the North East and the West Midlands in this age group more than doubled between the two periods. The East of England, London, the South East and South West had the lowest death rates over the two time periods, but only London had a reduction in the rate of alcohol-related death for young men between 1991–1997 and 1998-2004, from 1.7 to 1.4 deaths per 100,000 (a decrease of 18 per cent).

For men aged 35–54, rates were over 10 times higher than those for men aged 15–34. The UK rate increased by 65 per cent from 16.5 to 27.3 deaths per 100,000 population (Figure 3b). As with younger men, Scotland had the highest rate in both time periods and was more than double the overall UK rate in 1998-2004. Northern Ireland, the North West, North East and London had rates higher than the UK rate for both periods, but London was the only region where the alcohol-related death rate increased at a slower rate than for the whole of the UK between 1991–1997 and 1998–2004. The lowest alcohol-related death rates for both periods in this age group were in the East of England (9.2 and 15.2 deaths per 100,000). The East of England was also the only area to have a significantly lower rate in 1998–2004 than the overall UK rate in 1991–1997.

The alcohol-related death rate in the UK among men aged 55–74 increased by around half, from 26.2 to 38.7 deaths per 100,000 (Figure 3c). All areas within the UK showed increases in rates of around a third to three-fifths except Scotland where the alcohol-related death rate increased from 55.5 to 96.2 deaths per 100,000. The East of England had the lowest alcohol-related death rates for both time periods, 15.8 in 1991–1997 and in 1998–2004 the rate was less than a quarter of the rate in Scotland at 22.4 deaths per 100,000.

The alcohol-related death rates for men aged over 75 varied less between areas compared with men in younger age groups. However, men aged 75 and over in Scotland had alcohol-related death rates which were considerably higher than rates for the other countries of the UK in both 1991–1997 and 1998–2004 (Figure 3d). In the more recent period, rates for men aged 75 and over in Scotland were more than double the rates in Wales (40.1 and 19.7 deaths per 100,000, respectively). In 1998–2004, London was the only region of England to have a higher death rate than the rate for the UK at 25.7 deaths per 100,000. The largest increase in rates between the two time periods, of 79 per cent, was in Northern Ireland (from 13.5 to 24.2 per 100,000). Unlike men in any other age group, the lowest alcohol-related death rate was in Yorkshire and the Humber for both time periods (14.4 and 18.3 deaths per 100,000).

Figure 2 Age-standardised alcohol-related rates: by sex and country of residence in the United Kingdom, three-year rolling averages, 1991–1993 to 2002–2004

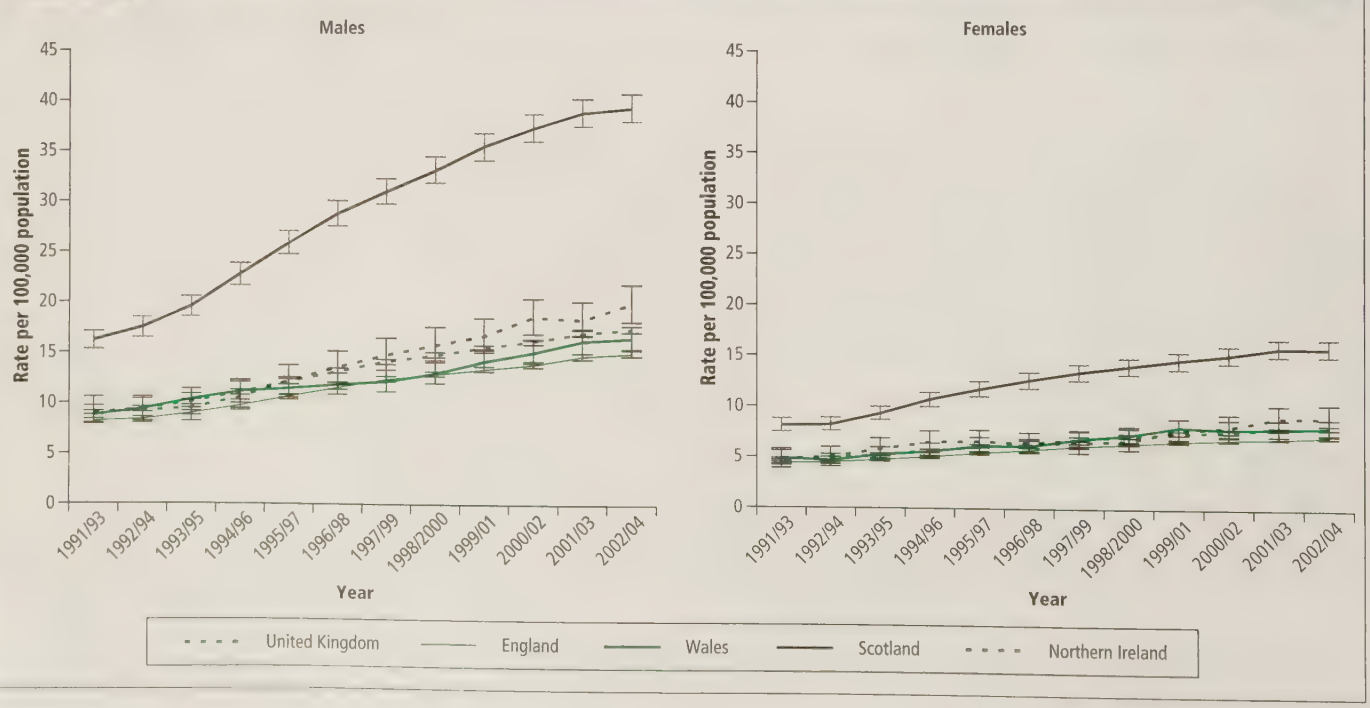


Figure 3 Age-standardised alcohol-related rates for men by age group, for United Kingdom countries and Government Office Regions in England, 1991–1997 and 1998–2004

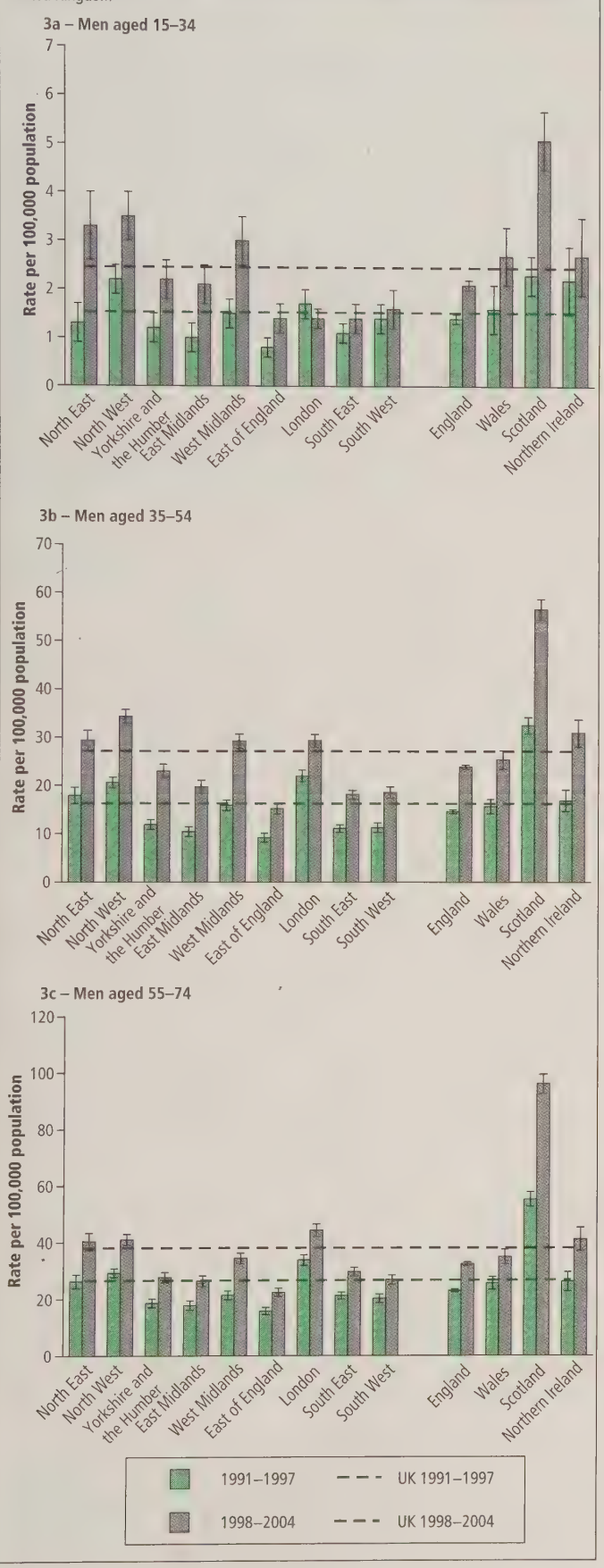


Figure 3 Age-standardised alcohol-related rates for men by age group, for United Kingdom countries and Government Office Regions in England, 1991–1997 and 1998–2004

Female alcohol-related death rates by age in the countries of the UK and regions of England, 1991–1997 and 1998–2004

Women aged 15–34 had very low alcohol-related death rates, lower than the rate for men in the same age group, and wide confidence intervals (Figure 4a). The overall rate for the UK increased by 57 per cent between 1991–1997 and 1998–2004 (from 0.7 to 1.1 deaths per 100,000). Scotland and the North West had the highest rates for both time periods. The death rates in the North East and the West Midlands doubled between 1991–1997 and 1998–2004 and in both cases were above the UK rate in the latter period. The South East, South West and East of England had the lowest rates.

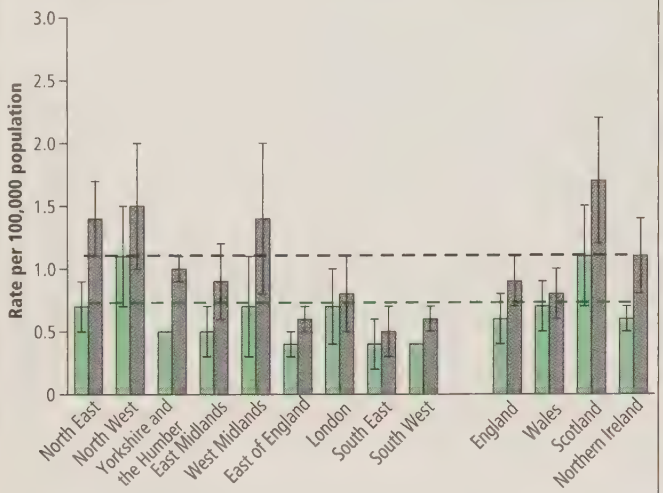
For women aged 35–54, Scotland had the highest alcohol-related death rate in the UK in both 1991–1997 and 1998–2004 (16.5 and 25.4 deaths per 100,000, respectively) – more than double the corresponding rates in England (Figure 4b). Northern Ireland and the North West also had rates higher than those for the UK as a whole in both time periods. The overall UK death rate increased by 60 per cent, from 8.4 to 13.4 deaths per 100,000. The largest increases in rates between 1991–1997 and 1998–2004 were in Yorkshire and the Humber (82 per cent), and the North East, where the alcohol-related death rate more than doubled, which meant that for the latter period its rate was higher than the UK rate. The lowest rate for both periods was in the East of England. This rate increased from 4.7 deaths per 100,000 in 1991–1997 to 8.0 in 1998–2004. London had the smallest increase (11 per cent) in alcohol-related death rates between the two time periods, from 9.6 to 10.7 deaths per 100,000.

For women aged 55–74, the overall alcohol-related death rate increased by 39 per cent, from 13.9 deaths per 100,000 in 1991–1997 to 19.3 per 100,000 in 1998–2004 (Figure 4c). Scotland's rate was substantially higher than the overall UK rate in both periods. The difference between the rates was greater in 1998–2004 with the rate in Scotland nearly double the rate for the UK as a whole (37.0 and 19.3 deaths per 100,000, respectively). The North West also had rates higher than those for the UK as a whole in both time periods. The North East had the largest increase in its rate of alcohol-related deaths of 58 per cent, from 11.7 deaths per 100,000 in 1991–1997 to 18.5 per 100,000 in 1998–2004. As with

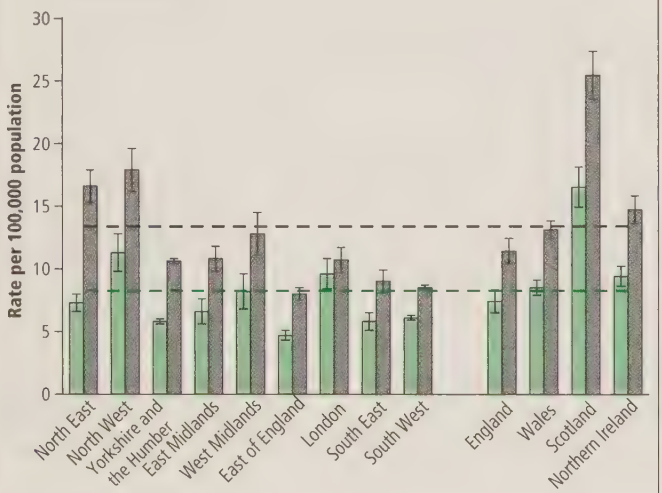
Figure 4 Age-standardised alcohol-related rates for women by age group, for United Kingdom countries and Government Office Regions in England, 1991–1997 and 1998–2004

United Kingdom

4a – Women aged 15–34



4b – Women aged 35–54



4c – Women aged 55–74

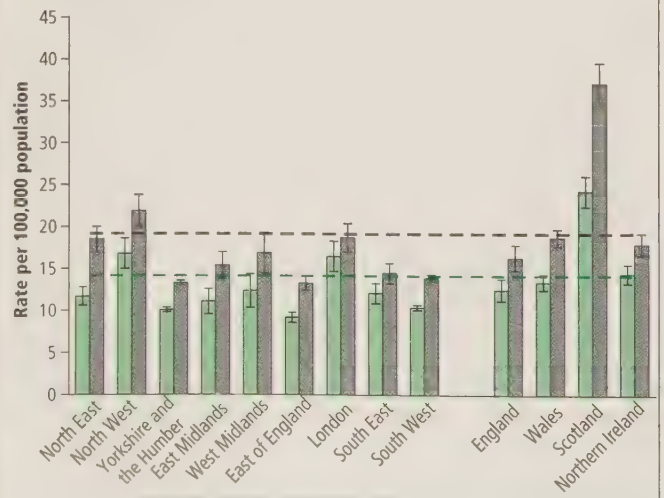
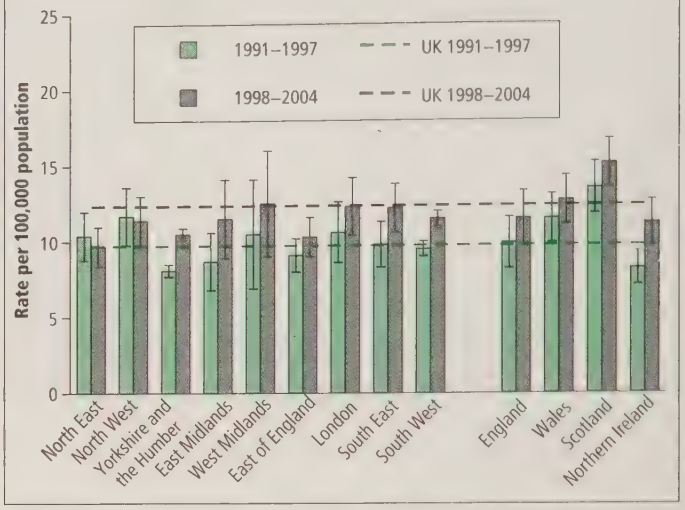


Figure 4 Age-standardised alcohol-related rates for women by age group, for United Kingdom countries and Government Office Regions in England, 1991–1997 and 1998–2004

United Kingdom

4d – Women aged 75 and over



women aged 35–54, the East of England had the lowest alcohol-related death rate for women aged 55–74, and the smallest increase in rates was in London. Here the rate increased by 13 per cent between 1991–1997 and 1998–2004, from 16.5 to 18.7 deaths per 100,000.

Alcohol-related death rates for women aged 75 and over showed a smaller amount of change between 1991–1997 and 1998–2004 than the rates for women in younger age groups (Figure 4d). The overall UK rate increased by a fifth between the two periods, from 10.3 to 12.4 deaths per 100,000. The pattern across the UK was also different, with the North East and North West showing a slight reduction in the alcohol-related death rate between the time periods. Women in Northern Ireland and the East Midlands had the largest increase in death rates between 1991–1997 and 1998–2004, just over and just under a third respectively.

Male alcohol-related death rates in local areas of the UK

The number of local areas which had an alcohol-related death rate 50 per cent or more lower than the overall UK rate decreased, from 94 in 1991–1997, to 83 in 1998–2004. There was an increase in the number of local areas with a death rate at least 25 per cent higher than the rate for the UK, from 52 in 1991–1997 to 60 in 1998–2004. As mentioned earlier, areas with fewer than 10 deaths were excluded from the analysis. Out of a total of 426 local areas in the UK, 18 areas with fewer than 10 deaths were excluded in 1991–1997, and 4 were excluded in 1998–2004.

As already noted, Scotland had the highest rate of alcohol-related deaths in the UK during 1991–1997. In Scotland, 20 out of the 32 local areas had alcohol-related death rates that were at least 25 per cent higher than the overall UK rate and half had rates which were at least 50 per cent higher (Map 1). Aberdeenshire was the only area of Scotland that had a rate at least 25 per cent lower than the UK rate in 1991–1997. Areas with particularly high rates were not just found in Scottish cities but also included several rural councils.

In Northern Ireland, all four Parliamentary Constituencies of Belfast had rates at least 25 per cent higher than the overall UK rate during 1991–1997, three areas (Belfast North, Belfast East and Belfast West) had rates that were 50 per cent or more higher. In England 12 out of 337 areas had rates 50 per cent or more higher than the overall UK rate, eight

of which were in London, while there were no areas in Wales with a rate in this band. A small number of areas in England and Wales had rates which were between 25 and 49 per cent higher than the UK rate. These were scattered with seven in London and three in the North West. The lowest rates, at least 50 per cent lower than the UK rates, were found in three areas in Wales, four areas in Northern Ireland and over 25 per cent of areas in England, which were geographically widespread.

In 1998–2004, geographical differences between local areas appeared more pronounced than in 1991–1997 (Map 1 and Map 2). Twenty-two local areas in Scotland in the more recent period had a rate that was 50 per cent or more higher than the overall UK rate. As in 1991–1997, Aberdeenshire was the only Scottish area that had an alcohol-related death rate that was at least 25 per cent lower than the overall UK rate. In Northern Ireland, all four Belfast Parliamentary Constituencies had a rate at least 50 per cent higher than the UK rate in 1998–2004, compared with three in 1991–1997. In England, there were very high alcohol-related death rates in ten areas that were mostly clustered in the North West and London, with one area in each of the Midlands and the South East. The local areas with the lowest rates of alcohol-related deaths, at least 50 per cent lower than the UK rate, were all in England and Wales. Within England, the lowest rates were found across large parts of the country.

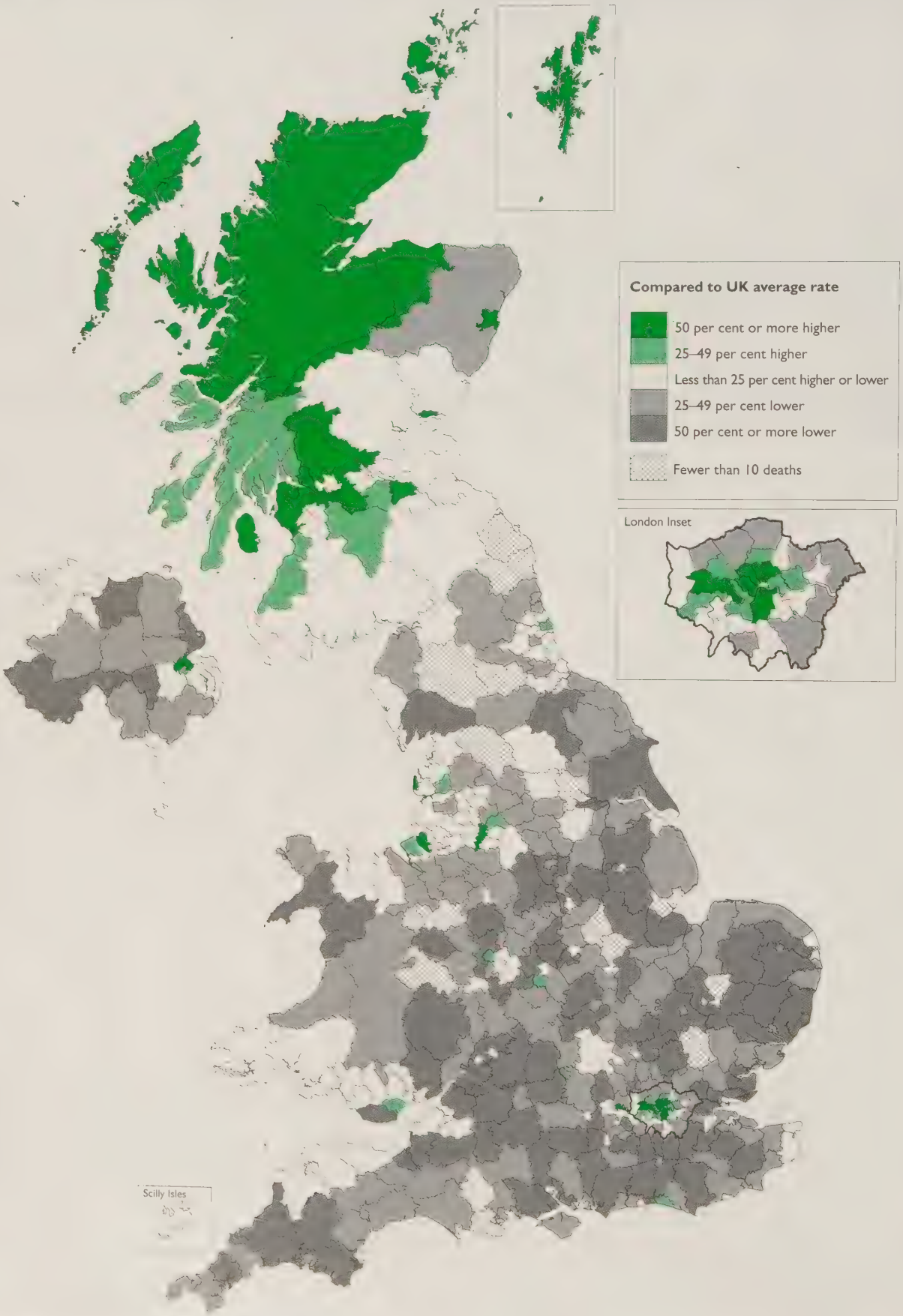
Another way of considering geographical variations is to rank local areas by alcohol-related death rate (Table 1). In 1991–1997, 12 out of the 20 areas with the highest rates in the UK were in Scotland. The highest male alcohol-related death rates in the UK in 1991–1997 were in the neighbouring areas of Inverclyde and Glasgow City (43.3 and 42.8 deaths per 100,000 population, respectively) which were 40 per cent higher than Renfrewshire, the third highest area. The highest male alcohol-related death rate in England in 1991–1997 was in Hammersmith and Fulham (29.8 deaths per 100,000 population) and five other English areas were also among the 20 with highest rates: Camden, Manchester, Westminster, Southwark and Liverpool. Belfast West had the highest death rate in Northern Ireland followed by Belfast North (25.4 and 23.3 deaths per 100,000, respectively). Cardiff had the highest alcohol-related death rate in Wales at 17.2 deaths per 100,000 and was ranked 37th in the UK.

Table 1 **Local areas with the highest alcohol-related death rates in males in the United Kingdom, 1991–1997 and 1998–2004[1]**

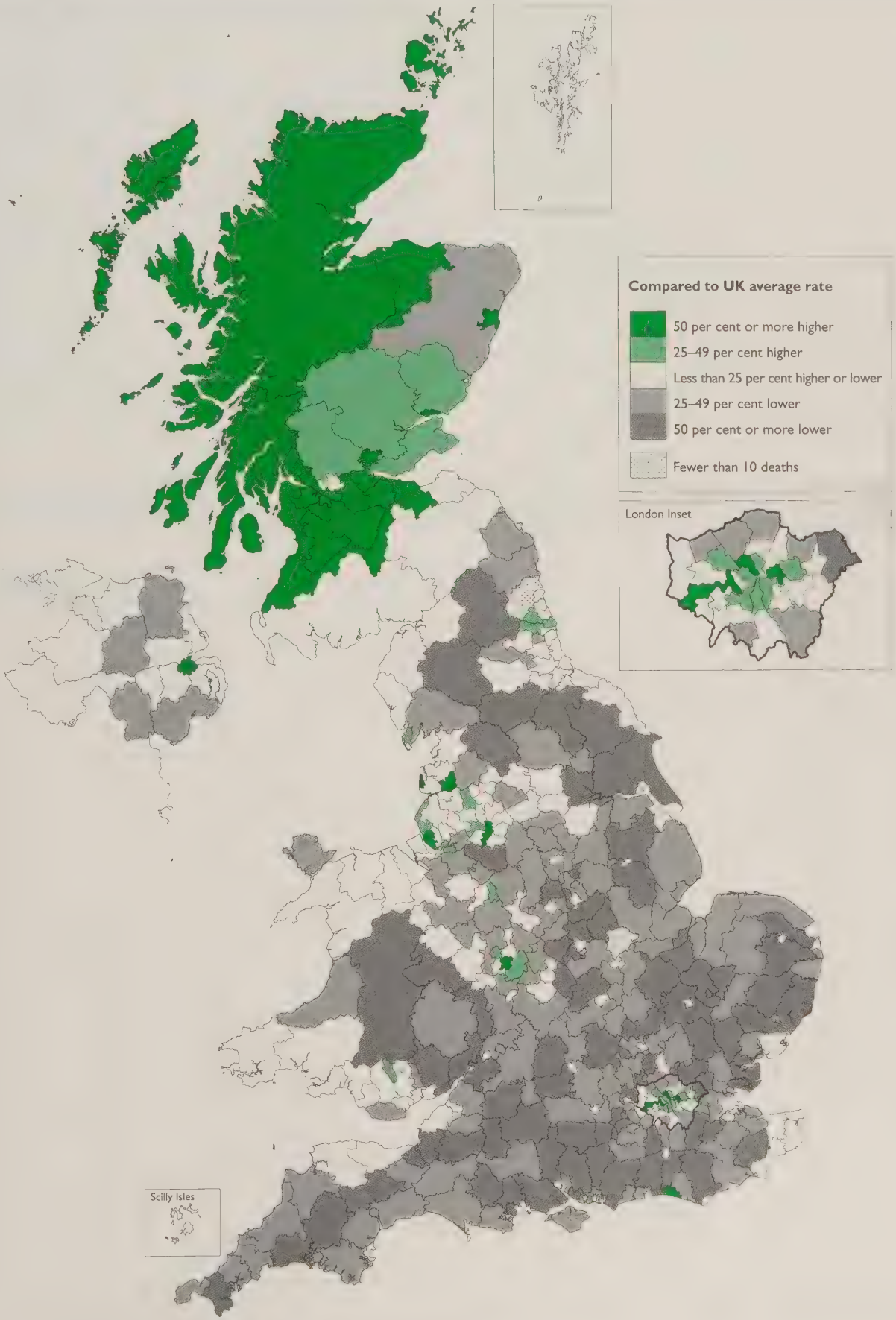
Rank 1991–1997	Country	Local area	Alcohol-related death rate per 100,000 population	95% Confidence Interval	Number of deaths	Rank order 1998–2004[2]
1	Scotland	Inverclyde	43.3	(35.8 ; 50.9)	127	2
2	Scotland	Glasgow City	42.8	(39.9 ; 45.8)	797	1
3	Scotland	Renfrewshire	30.2	(25.8 ; 34.7)	175	4
4	England	Hammersmith and Fulham	29.8	(24.6 ; 35.0)	127	23
5	Scotland	West Dunbartonshire	29.5	(23.4 ; 35.5)	90	3
6	Northern Ireland	Belfast West	25.4	(18.8 ; 32.0)	57	8
7	England	Camden	23.9	(19.8 ; 28.0)	130	17
8	Northern Ireland	Belfast North	23.3	(17.6 ; 29.0)	64	11
9	Scotland	North Lanarkshire	23.3	(20.4 ; 26.2)	243	7
10	Scotland	Orkney Islands	22.9	(11.7 ; 34.2)	16	6
11	Scotland	Shetland Islands	22.7	(11.6 ; 33.9)	16	79
12	England	Manchester	22.7	(20.0 ; 25.4)	271	19
13	Scotland	Highland	22.6	(19.1 ; 26.0)	166	22
14	England	Westminster	22.4	(18.6 ; 26.2)	133	39
15	Scotland	Edinburgh, City of	21.9	(19.4 ; 24.3)	304	12
16	England	Southwark	21.6	(18.0 ; 25.2)	139	52
17	Scotland	Stirling	21.3	(15.8 ; 26.7)	59	38
18	Scotland	North Ayrshire	21.2	(16.9 ; 25.4)	96	13
19	Scotland	Clackmannanshire	21.1	(13.9 ; 28.2)	33	18
20	England	Liverpool	21.0	(18.6 ; 23.4)	303	30
Rank 1998–2004						Rank order 1991–1997[3]
1	Scotland	Glasgow City	83.7	(79.5 ; 87.9)	1,529	2
2	Scotland	Inverclyde	77.8	(67.8 ; 87.9)	232	1
3	Scotland	West Dunbartonshire	56.2	(47.9 ; 64.4)	179	5
4	Scotland	Renfrewshire	55.1	(49.2 ; 61.0)	337	3
5	Scotland	Dundee City	45.0	(39.0 ; 50.9)	221	21
6	Scotland	Orkney Islands	43.7	(28.8 ; 58.6)	33	10
7	Scotland	North Lanarkshire	42.2	(38.4 ; 46.1)	464	9
8	Northern Ireland	Belfast West	39.9	(31.8 ; 48.1)	93	6
9	England	Blackpool	39.7	(34.3 ; 45.1)	211	24
10	Scotland	Eilean Siar	37.5	(26.1 ; 49.0)	41	27
11	Northern Ireland	Belfast North	35.5	(28.3 ; 42.7)	93	8
12	Scotland	Edinburgh, City of	35.4	(32.3 ; 38.4)	519	15
13	Scotland	North Ayrshire	33.4	(28.4 ; 38.5)	166	18
14	Scotland	Moray	33.3	(27.0 ; 39.7)	107	22
15	Scotland	South Lanarkshire	33.1	(29.7 ; 36.5)	355	36
16	Scotland	West Lothian	32.7	(27.8 ; 37.5)	174	46
17	England	Camden	32.5	(27.8 ; 37.2)	180	7
18	Scotland	Clackmannanshire	31.2	(22.8 ; 39.6)	53	19
19	England	Manchester	30.9	(27.8 ; 34.0)	380	12
20	Scotland	Aberdeen City	30.7	(26.6 ; 34.8)	219	26

1. Local areas with fewer than 10 deaths in this period have been excluded.
2. Rank order: 1=Highest rate, 422 = Lowest rate.
3. Rank order: 1=Highest rate, 408 = Lowest rate.

Map 1 Alcohol-related death rates in males by local area, 1991–1997


Compared to UK average rate
50 per cent or more higher
25–49 per cent higher
Less than 25 per cent higher or lower
25–49 per cent lower
50 per cent or more lower
Fewer than 10 deaths
London Inset
Scilly Isles

Map 2 Alcohol-related death rates in males by local area, 1998–2004


Compared to UK average rate
50 per cent or more higher
25–49 per cent higher
Less than 25 per cent higher or lower
25–49 per cent lower
50 per cent or more lower
Fewer than 10 deaths
London Inset
Scilly Isles

In 1998–2004 the list of the areas with the highest alcohol-related death rates was still dominated by areas in Scotland (15 out of 20 areas), with Glasgow City now having the highest rate in the UK followed by Inverclyde (83.7 and 77.8 deaths per 100,000, respectively) which were substantially higher than West Dunbartonshire (56.2 deaths per 100,000) which was ranked third. Dundee City and West Lothian both had death rates that more than doubled between the two time periods and were among the 20 areas with the highest rates in 1998–2004. In England, the rate in Blackpool almost doubled between the two periods, and this area had the ninth highest rate of alcohol-related deaths in the UK for 1998–2004. Camden and Manchester were the only other local areas in England to be among the areas with the highest death rates in the UK. As in 1991–1997, Belfast West and Belfast North were the areas with the highest rates in Northern Ireland (39.9 and 35.5 deaths per 100,000, respectively). The highest rate in Wales was in Merthyr Tydfil (ranked 50th in the UK), which also had the largest increase in Wales from 8.7 to 22.7 deaths per 100,000 between 1991–1997 and 1998–2004.

Female alcohol-related death rates in local areas of the UK

For females, more local areas had too few deaths to be included in the analysis. Out of a possible 426 local areas, 373 were included in the analysis in 1991–1997, and 407 in 1998–2004. Of the local areas excluded, in 1991–1997, 46 were in England, 3 in Scotland and 4 in Northern Ireland and in 1998-2004, 16 were in England, 2 in Scotland and 1 in Northern Ireland. High alcohol-related death rates were found in many local areas in Scotland in 1991–1997 (Map 3). Out of 29 areas included in the analysis in Scotland, 22 had a female alcohol-related death rate which was at least 25 per cent higher than the overall UK rate and 18 had a rate that was 50 per cent or more higher. Scotland had no local areas with an alcohol-related death rate 25 per cent or more lower than the UK rate.

In Wales there were no local areas with an alcohol-related death rate 50 per cent or more higher than the overall UK rate and only three areas which had a rate that was at least 25 per cent higher than the UK rate. Of the areas included in Northern Ireland, five had a very high rate (50 per cent or more higher than the UK rate), including all four areas of Belfast. No areas in Northern Ireland had a rate 50 per cent or more lower than the UK rate. In England, very high rates were mainly clustered in the North West and London. The areas with the lowest alcohol-related death rates in England (50 per cent or more lower than the overall UK rate) were spread across many regions.

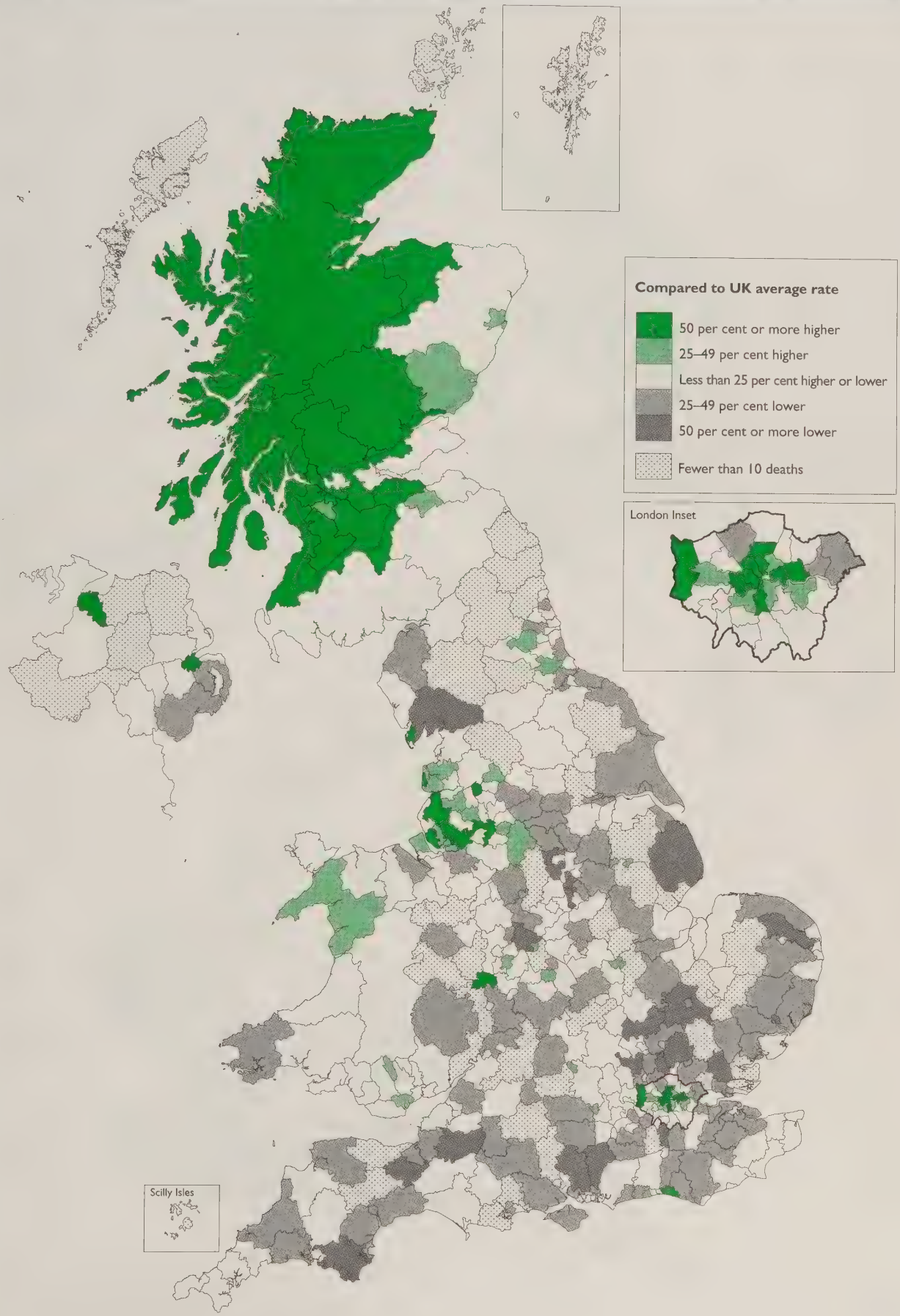
In 1998–2004, high female alcohol-related death rates continued to be found in many areas of Scotland but the number of areas that had a rate which was 25 per cent or more higher than the overall UK rate was lower than in 1991–1997 at 19 (Map 4). Nearly half of Scottish local areas had a rate that was very high (50 per cent or more higher than the UK rate). As in 1991–1997, Scotland had no local areas with alcohol-related death rates at least 25 per cent lower than the UK rate.

Table 2 **Local areas with the highest alcohol-related death rates in females in the United Kingdom, 1991–1997 and 1998–2004[1]**

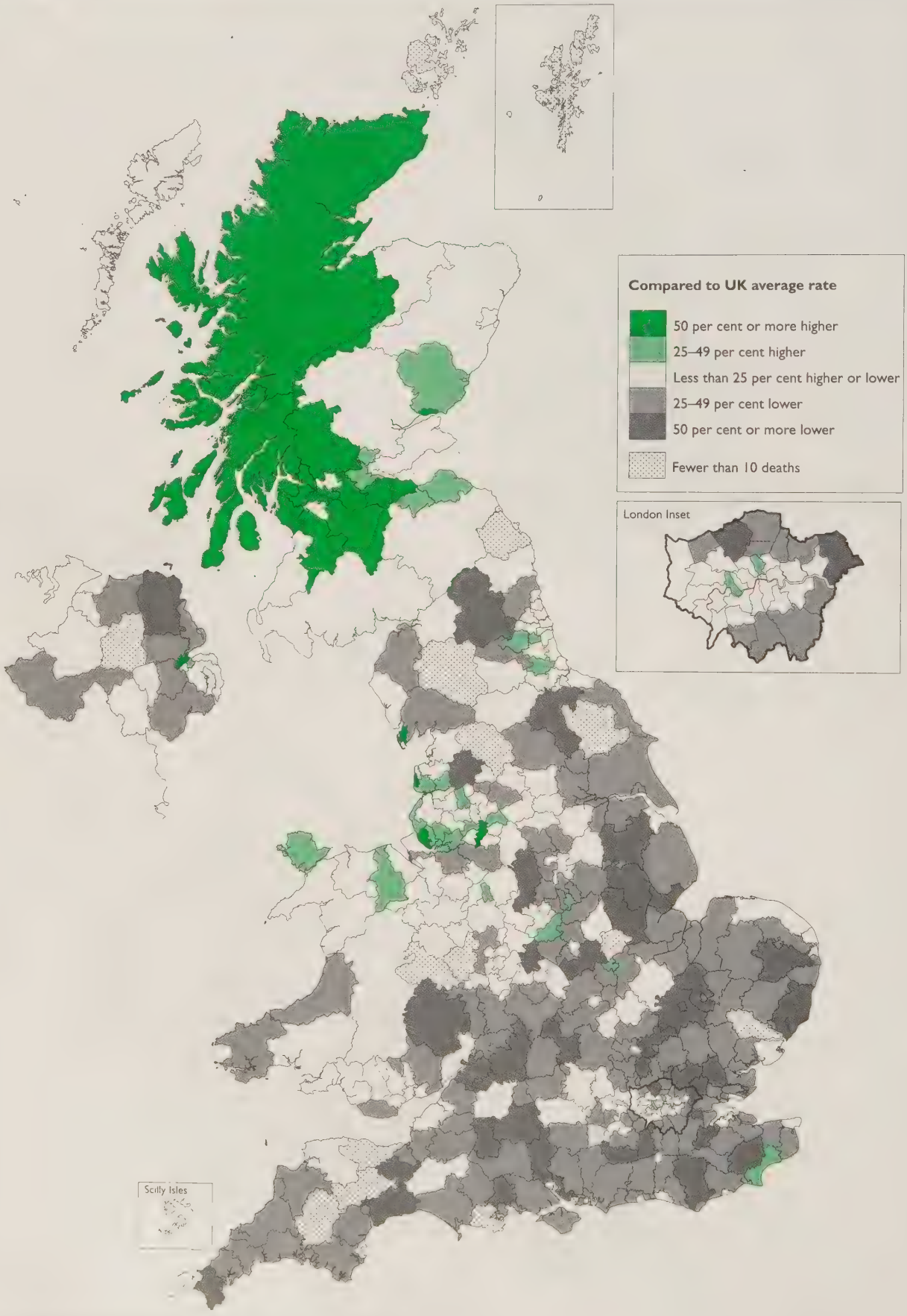
Rank 1991–1997	Country	Local area	Alcohol-related death rate per 100,000 population	95% Confidence Interval	Number of deaths	Rank order 1998–2004[2]
1	Scotland	Glasgow City	19.0	(17.2 ; 20.9)	412	1
2	Northern Ireland	Belfast East	14.0	(9.7 ; 18.2)	42	42
3	Scotland	West Dunbartonshire	13.5	(9.7 ; 17.2)	50	11
4	Scotland	Inverclyde	13.0	(9.2 ; 16.9)	44	4
5	England	Hammersmith and Fulham	12.7	(9.5 ; 15.9)	59	40
6	Scotland	Renfrewshire	12.3	(9.6 ; 15.0)	82	12
7	England	Westminster	12.1	(9.4 ; 14.8)	79	83
8	England	Blackpool	11.7	(9.0 ; 14.4)	71	10
9	Scotland	North Lanarkshire	11.7	(9.7 ; 13.7)	137	3
10	Scotland	Dundee City	11.4	(8.8 ; 14.1)	71	2
11	Northern Ireland	Belfast West	10.7	(6.9 ; 14.5)	30	5
12	England	St. Helens	10.5	(8.1 ; 12.9)	74	30
13	England	Manchester	10.4	(8.7 ; 12.1)	149	15
14	Northern Ireland	Belfast South	10.3	(6.8 ; 13.9)	32	52
15	Northern Ireland	Belfast North	10.3	(6.9 ; 13.7)	35	9
16	Scotland	South Ayrshire	10.0	(7.2 ; 12.8)	50	53
17	Scotland	North Ayrshire	10.0	(7.2 ; 12.8)	50	17
18	Scotland	Highland	9.8	(7.7 ; 12.0)	80	13
19	England	Kensington and Chelsea	9.7	(7.1 ; 12.3)	52	159
20	England	West Lancashire	9.7	(6.7 ; 12.7)	41	54
Rank 1998–2004						Rank order 1991–1997[3]
1	Scotland	Glasgow City	30.9	(28.4 ; 33.4)	587	1
2	Scotland	Dundee City	22.2	(18.2 ; 26.2)	120	10
3	Scotland	North Lanarkshire	18.5	(15.9 ; 21.1)	197	9
4	Scotland	Inverclyde	18.3	(13.8 ; 22.8)	64	4
5	Northern Ireland	Belfast West	18.3	(13.3 ; 23.3)	51	11
6	Scotland	West Lothian	17.8	(14.1 ; 21.5)	89	24
7	Scotland	Edinburgh, City of	17.7	(15.5 ; 19.9)	252	33
8	Scotland	South Lanarkshire	17.3	(14.9 ; 19.8)	187	21
9	Northern Ireland	Belfast North	17.2	(12.6 ; 21.9)	53	15
10	England	Blackpool	17.1	(13.7 ; 20.5)	99	8
11	Scotland	Renfrewshire	16.6	(13.4 ; 19.7)	107	6
12	Scotland	West Dunbartonshire	16.4	(12.5 ; 20.3)	68	3
13	Scotland	Highland	16.1	(13.3 ; 18.9)	128	18
14	England	Manchester	14.5	(12.4 ; 16.6)	183	13
15	Scotland	East Ayrshire	14.5	(11.1 ; 17.9)	71	23
16	Scotland	Argyll & Bute	14.4	(10.5 ; 18.4)	51	38
17	Scotland	North Ayrshire	13.9	(11.1 ; 16.7)	93	17
18	England	Liverpool	13.6	(11.7 ; 15.5)	206	34
19	Scotland	Stirling	13.3	(9.4 ; 17.1)	46	29
20	England	Barrow-in-Furness	12.9	(8.7 ; 17.1)	37	28

1. Local areas with fewer than 10 suicides in this period have been excluded.
2. Rank order: 1=Highest rate, 407 = Lowest rate.
3. Rank order: 1=Highest rate, 373 = Lowest rate.

Map 3 Alcohol-related death rates in females by local area, 1991–1997


Compared to UK average rate
50 per cent or more higher
25–49 per cent higher
Less than 25 per cent higher or lower
25–49 per cent lower
50 per cent or more lower
Fewer than 10 deaths
London Inset
Scilly Isles

Map 1 Alcohol-related death rates in females by local area, 1998–2004


Compared to UK average rate
50 per cent or more higher
25–49 per cent higher
Less than 25 per cent higher or lower
25–49 per cent lower
50 per cent or more lower
Fewer than 10 deaths
London Inset
Scilly Isles

In Northern Ireland two areas of Belfast (Belfast North and Belfast West) had a rate of alcohol-related death that was very high (50 per cent or more higher than the UK rate). Belfast East had a rate that was between 25 and 49 per cent higher than the UK rate, while Belfast South had a rate that was closer to the overall UK rate. In Wales there were no areas with either very high or very low rates (50 per cent or more higher or 50 per cent or more lower than the UK rate). Denbighshire and the Isle of Anglesey were the only Welsh areas that had a rate at least 25 per cent higher than the UK rate. In England the local areas with very high alcohol-related death rates were all in the North West and the number of areas which had a rate 50 per cent or more higher than the UK rate decreased from 21 in 1991–1997 to four in 1998–2004. In England, 15 per cent of local areas had very low alcohol-related death rates and 54 per cent had a rate at least 25 per cent lower than the overall rate in the UK.

When local areas were ranked, in 1991–1997 the highest female alcohol-related death rate in the UK was found in Glasgow City (19.0 deaths per 100,000 (Table 2)). Out of the 20 areas with the highest rates nine were in Scotland in 1991–1997. Hammersmith and Fulham had the highest female rate in England (12.7 deaths per 100,000 population) while in Northern Ireland the local area with the highest rate was Belfast East (14.0 deaths per 100,000), the second highest in the UK. The highest female rate in Wales in 1991–1997 was Gwynedd (7.8 death per 100,000) and this area was ranked 52nd in the UK.

Glasgow City in Scotland also had the highest alcohol-related death rate in 1998–2004 (30.9 deaths per 100,000 population). Fourteen of the local areas with the highest alcohol-related death rates were in Scotland in 1998–2004. In England the highest rate was in Blackpool (17.1 deaths per 100,000). Manchester, Liverpool and Barrow-in-Furness were also among the areas with the 20 highest rates in the UK: 14.5, 13.6 and 12.9 deaths per 100,000, respectively. In Northern Ireland, Belfast West and Belfast North had the highest rates (18.3 and 17.2 deaths per 100,000, respectively) while in Wales, Denbighshire had the highest rate (12.1 deaths per 100,000) and was ranked 26th in the UK.

Alcohol-related death rates by deprivation in England and Wales, 1999–2003

There was a strong association between alcohol-related death rates and Carstairs deprivation category for both sexes in England and Wales, with rates increasing with increasing deprivation (Figure 5). For females, alcohol-related death rates for those living in the most deprived areas were more than three times higher than for those living in the least deprived areas, rising from 3.7 deaths per 100,000 in the least deprived twentieth to 11.3 deaths per 100,000 in the most deprived twentieth. For males the relationship was even stronger – those living in the most deprived areas had an alcohol-related death rate over five times higher than those living in the least deprived areas, rising from 6.2 deaths per 100,000 to 31.9 deaths per 100,000. Males in the least deprived areas had a rate that was lower than the overall rate for females in England and Wales, while males in the most deprived areas had an alcohol-related death rate that was more than double the overall rate for males in England and Wales.

The association between alcohol-related deaths and deprivation observed at national level was still clear within the regions of England, and Wales, with those living in the most deprived fifth of areas having higher alcohol-related death rates than those living in the least deprived fifth. However the spread of rates across deprivation quintiles was not consistent between regions, particularly for women.

The region with the biggest ratio between deprivation categories for males was in the South West where the rate was nearly five times higher in the most deprived quintile compared to that in the least deprived quintile (Figure 6). The North West had the highest alcohol-related death rate for

Figure 5 Age-standardised alcohol-related death rates: by deprivation twentieth and sex, 1999–2003

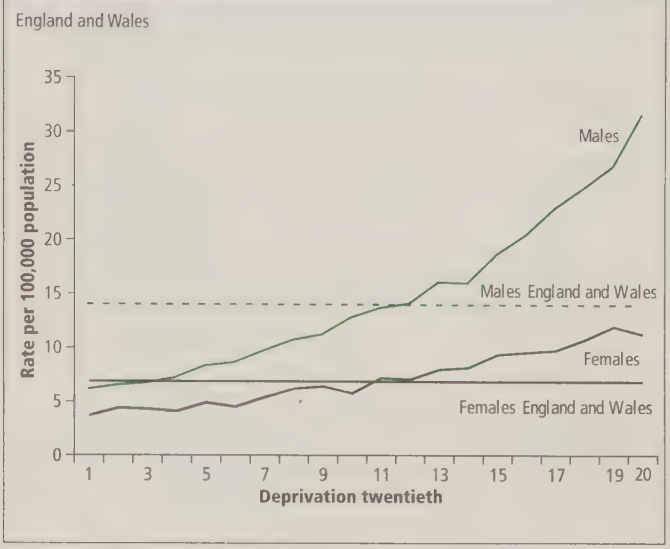
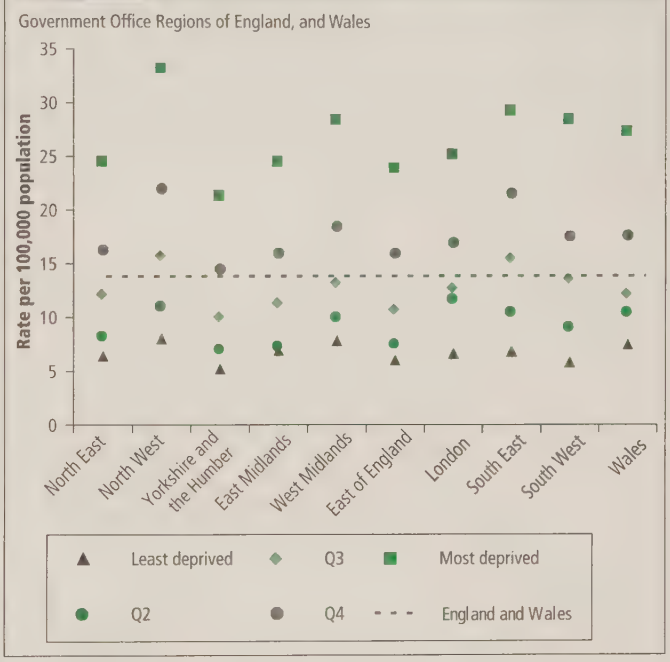


Figure 6 Age-standardised alcohol-related death rates: by deprivation quintile, males, 1999–2003

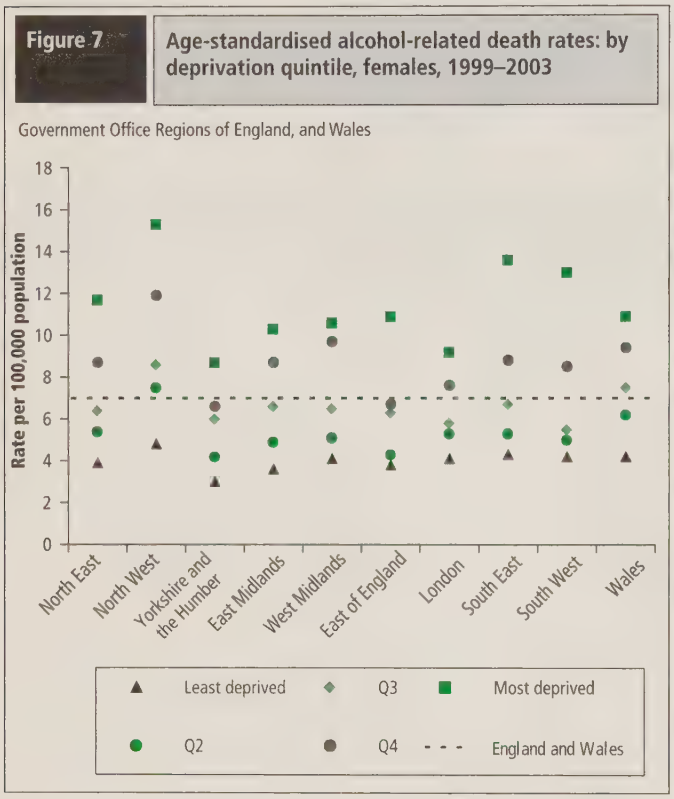


the most deprived quintile (33.3 deaths per 100,000 population) and along with the South East was the only area where the death rate in Quintile 3 was higher than the overall England and Wales rate. The area with the least variation between alcohol-related death rates in the most and least deprived quintiles was the East Midlands where the rate was just over three and a half times higher for those living in the most deprived areas. All regions had alcohol-related death rates in the most deprived two quintiles which were higher than the England and Wales rate. There was generally more geographical variation between rates for the most deprived quintile than the least deprived. For the latter, Yorkshire and the Humber had the lowest alcohol-related death rate (5.2 deaths per 100,000), and the North West had the highest (8.0 deaths per 100,000).

For females, there was also a large geographical variation between the two most deprived categories. However the variation between deprivation quintiles within regions was less than for males (Figure 7). The North

East, North West, South East and South West regions had the greatest variation between deprivation categories with alcohol-related death rates for the most deprived quintile over three times that of the least deprived. As with males, the North West had the highest alcohol-related death rate in the most deprived quintile (15.3 deaths per 100,000) and this was also the only area where just Quintile 1 had a rate lower than the overall rate for England and Wales. The East of England, the South East and South West all had large differences in rates between the most deprived areas and all other areas within the region (those living in Quintile 5 had a death rate over 50 per cent higher than those in Quintile 4). The smallest variation between alcohol-related death rates in the most and least deprived areas was in London, where those living in the most deprived areas had a rate just over double that of those in the least deprived areas. Yorkshire and the Humber had the lowest rate of alcohol-related deaths in all but one deprivation category and was the only area where just Quintile 5 had a rate that was higher than the overall rate for England and Wales.

Figure 7 **Age-standardised alcohol-related death rates: by deprivation quintile, females, 1999–2003**



Discussion

In the UK between 1991 and 2004 the number of alcohol-related deaths nearly doubled. Recently published figures for alcohol-related deaths in the UK for 2005 show that this upward trend has continued with the number of alcohol-related deaths now double what they were in 1991.[13] In 2004 alcohol-related deaths accounted for nearly 1.5 per cent of the total number of deaths in the UK and nearly two-thirds were among males. Reasons for the rise in alcohol-related deaths have been widely debated. In 2001 the Chief Medical Officer drew attention to the increase in liver cirrhosis at younger ages in his annual report stating 'Although we cannot be completely certain, by far the most convincing explanation for the increase in death rates from chronic liver disease and liver cirrhosis reported here is the higher levels of alcohol consumption'.[20]

The ONS General Household Survey (GHS) asks those aged 16 and over living in Great Britain questions about alcohol consumption, to provide estimates of the percentage of people drinking at higher levels than the recommended weekly limits.[21] Since the early 1980s figures from the GHS have shown little change in the percentage of men drinking more than 21 units in the last week and women drinking more than 14 units in the last week. Data on average weekly alcohol consumption collected by the GHS and the Continuous Household Survey for Northern Ireland did not follow the same geographic pattern as alcohol-related mortality rates across the countries of the UK. In 1996/97 men in Northern Ireland consumed the fewest number of units per week while men in England consumed the most. The pattern of consumption across the constituent countries for women was different; women in Scotland and Northern Ireland consumed the fewest units while women in Wales consumed the most.[6] In 2005 the GHS showed that overall average weekly alcohol consumption was 10.0 units in Wales, 10.5 units in Scotland and 10.9 units in England.

However it is also possible that the increase in alcohol-related mortality is linked to changing consumption patterns, such as binge drinking, changes in the type of alcohol consumed, and changing drinking habits in the young. In 1995, the government changed its guidelines on sensible drinking from weekly to daily benchmarks, because binge drinking was recognised as a growing problem. The GHS has included questions on maximum daily amount drunk last week since 1998. Figures from the GHS for 1998–2005 show little change in the proportion of men drinking more than four units, or more than eight units, and women drinking more than three units, or more than six units on at least one day in the previous week.

Cirrhosis, accounts for about 85 per cent of the alcohol-related deaths considered here. As cirrhosis normally takes many years to develop, it is possible that examining recent trends in alcohol consumption is not sufficient to establish how far alcohol has contributed to the observed rise in death rates. Surveys that estimate alcohol consumption have been noted to underestimate it for several different reasons.[22] Survey samples of people living in private households may exclude groups which probably contain a higher than average proportion of heavy drinkers and heavy drinkers may be more difficult to contact. In addition, people usually underestimate the amount they drink and people who drink at home may find it difficult to estimate the amount they are drinking.

Tackling alcohol misuse was emphasised as a key priority for England in the NHS Plan in July 2000.[23] *The Alcohol Harm Reduction Strategy for England* was published in March 2004, with an aim of 'targeting alcohol-related harm and its causes without interfering with the pleasure enjoyed by the millions of people who drink responsibly'.[4] This was followed in November 2004 by a White Paper *Choosing Health: Making healthy choices easier* covering a wide range of issues concerning the responsibilities of individuals, government departments, and social and commercial organisations.[24] The paper also highlighted working with the Portman Group to cut down binge drinking. The Portman Group was set up in 1989 by the UK's leading drinks producers to promote sensible drinking, help prevent misuse of alcohol, encourage responsible marketing and foster a balanced understanding of alcohol-related issues.

It has been well documented that Scotland has a high alcohol-related death rate compared to the other constituent countries of the UK. The majority of local areas in the UK with very highest alcohol-related death rates are in Scotland.[25] Information on alcohol-related discharges from general acute hospitals further confirms the alcohol misuse problems in Scotland. In 2004–05 over 40 thousand discharges had an alcohol-related diagnosis, a rate of 748 per 100,000 population; this rate had increased by 17 per cent since 2000–01. The Scottish council areas with the highest alcohol-related discharge rates were Eilean Siar, Glasgow City and Inverclyde, which are all areas with high alcohol-related mortality. In 2002, the Scottish Executive published a *Plan for Action on Alcohol Problems* which aimed to reduce alcohol-related harm in Scotland. Short-term aims included changing attitudes to alcohol, and developing support

and treatment services. Long-term aims included reducing alcohol consumption within targeted groups, reducing harmful drinking patterns and reducing public nuisance and crime related to alcohol. An updated plan which builds on the original will be published soon. This will set out a programme of action to change drinking cultures and reduce alcohol-related harm through government action, partnership working and encouraging individuals to take personal responsibility. New legislation on licensing in Scotland comes into force in 2009 following a transitional period starting in February 2008. The act reforms current licensing laws in Scotland, brings in new provisions related to underage drinking and introduces new measures to reduce promotional activities such as 'two for one offers'.[26]

Wales was the only constituent country of the UK to have no local areas with very high alcohol-related death rates (at least 50 per cent higher than the UK rate), however increases in alcohol-related crime, disorder and major alcohol-related health effects led to the introduction of a 'Substance Misuse Strategy' which includes the misuse of alcohol alongside the misuse of illegal drugs.[27] The four aims of the strategy are to promote sensible drinking, protect families and communities, provide effective treatment and to stem availability.

Several parliamentary constituencies in Northern Ireland had an alcohol-related death rate at least 50 per cent higher than the overall UK rate, but the majority of areas had rates that were lower than the UK average. A strategy for *Reducing Alcohol Related Harm in Northern Ireland* was released in 2000 was reviewed in 2006 to give a new *Strategic Direction for Alcohol and Drugs*.[28] This addresses issues such as binge drinking, drink driving and under age drinking. Alcohol-related deaths have been set as one of the key indicators. In tandem with this proposals have been developed to reform Northern Ireland's Liquor Licensing laws, which will bring more effective ways to enforce licensing laws and to ensure that underage drinking can be addressed.

The analysis presented in this article shows a strong association between alcohol-related death rates and deprivation in England and Wales. Rates were more than five times higher for males, and more than three times higher for females, for those living in the most deprived areas compared to those in the least deprived areas. Other analyses have also shown a relationship between deprivation and liver cirrhosis death rates.[29,30] One of the four components of the Carstairs index used in the deprivation analysis was low social class, based on occupation. Other research has concluded that social class is a risk factor for alcohol-related deaths, particularly for men. Although the GHS reports that, on average, men in occupations classified as routine and manual drink less than men in professional occupations, [21] higher alcohol-related mortality rates have been reported for men in manual occupations compared to those in non-manual occupations, especially at younger ages.[31]

This article has illustrated the substantial rise in alcohol-related death rates in the UK between 1991 and 2004 for both sexes in all four countries and in all regions of England. Considerable geographical variations in death rates were present in the earlier part of the time period analysed, and these have become more pronounced in recent years as rates increased more rapidly in some areas than others. While these increases may be related to higher alcohol consumption, geographical patterns of alcohol consumption from survey data do not correspond with geographical variations in death rates. Further research is needed to explore the relationship between alcohol-related mortality and other factors such as drinking patterns and the influence of material deprivation and social disadvantage which may be contributing to persisting inequalities in these deaths.

Key findings

- The number of alcohol-related deaths in the UK nearly doubled between 1991 and 2004. In 2004 the alcohol-related death rate for males was more than double the rate for females. The biggest relative increases in alcohol-related death rates were seen in men and women aged 35–54.
- Scotland had the highest alcohol-related death rates of all the constituent countries of the UK for both sexes. In 2002/04 the alcohol-related death rate in Scotland was around double the UK rate for both sexes.
- Within England, men aged 55–74 in London had the highest alcohol-related death rate in both 1991–1997 and 1998–2004, while women aged 55–74 in the North West had the highest rates in both periods.
- For both sexes, areas in which the alcohol-related death rate was 50 per cent or more higher than the UK rate were mostly clustered in Scotland, Belfast, the North West and London.
- Glasgow City and Inverclyde had the highest alcohol-related death rates in the UK for males in both 1991–1997 and 1998–2004. For females, Glasgow City had the highest alcohol-related death rate in both periods.
- There was a strong association between alcohol-related death rates and deprivation in England and Wales, with alcohol-related death rates more than five times higher in males and more than three times higher in females for those living in the most deprived areas compared to those in the least deprived areas.

Acknowledgments

The authors thank Ani Berberjon for all her work on the early version of this article.

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Appendix 1

Age-standardised alcohol-related death rates with confidence intervals, for males and females by country of the United Kingdom and Government Office Region of England, three-year rolling averages 1991–1993 to 2002–2004

Males

Year	United Kingdom	95% Confidence Interval	England	95% Confidence Interval	Wales	95% Confidence Interval
1991/93	9.0	(8.8 ; 9.2)	8.2	(8.0 ; 8.4)	8.8	(7.9 ; 9.7)
1992/94	9.4	(9.1 ; 9.6)	8.4	(8.2 ; 8.6)	9.4	(8.6 ; 10.4)
1993/95	10.1	(9.8 ; 10.3)	9.0	(8.8 ; 9.2)	10.4	(9.5 ; 11.4)
1994/96	11.1	(10.8 ; 11.3)	9.8	(9.5 ; 10.0)	11.2	(10.3 ; 12.3)
1995/97	12.2	(11.9 ; 12.4)	10.7	(10.4 ; 10.9)	11.5	(10.6 ; 12.6)
1996/98	13.2	(13.0 ; 13.5)	11.6	(11.4 ; 11.9)	11.9	(10.9 ; 13.0)
1997/99	14.2	(13.9 ; 14.4)	12.4	(12.2 ; 12.7)	12.2	(11.2 ; 13.3)
1998/2000	14.8	(14.6 ; 15.1)	12.9	(12.7 ; 13.2)	13.0	(12.0 ; 14.1)
1999/2001	15.6	(15.3 ; 15.8)	13.4	(13.2 ; 13.7)	14.2	(13.2 ; 15.4)
2000/02	16.2	(15.9 ; 16.4)	13.9	(13.6 ; 14.2)	15.1	(14.0 ; 16.3)
2001/03	17.0	(16.8 ; 17.3)	14.7	(14.4 ; 15.0)	16.2	(15.0 ; 17.4)
2002/04	17.4	(17.1 ; 17.7)	15.0	(14.7 ; 15.3)	16.5	(15.4 ; 17.7)

	Scotland	95% Confidence Interval	N Ireland	95% Confidence Interval	North East	95% Confidence Interval
1991/93	16.1	(15.3 ; 17.1)	9.1	(7.9 ; 10.6)	8.6	(7.7 ; 9.6)
1992/94	17.4	(16.5 ; 18.5)	9.2	(8.0 ; 10.6)	9.1	(8.2 ; 10.1)
1993/95	19.5	(18.6 ; 20.6)	9.5	(8.2 ; 10.9)	9.7	(8.8 ; 10.8)
1994/96	22.7	(21.7 ; 23.9)	10.6	(9.3 ; 12.1)	11.0	(10.0 ; 12.1)
1995/97	25.8	(24.8 ; 27.1)	12.2	(10.8 ; 13.8)	13.3	(12.2 ; 14.5)
1996/98	28.7	(27.6 ; 30.1)	13.6	(12.1 ; 15.2)	15.3	(14.1 ; 16.6)
1997/99	30.9	(29.8 ; 32.3)	14.8	(13.3 ; 16.5)	16.8	(15.5 ; 18.1)
1998/2000	32.9	(31.9 ; 34.5)	15.8	(14.3 ; 17.6)	16.3	(15.1 ; 17.6)
1999/2001	35.2	(34.1 ; 36.8)	16.7	(15.1 ; 18.5)	16.1	(14.9 ; 17.4)
2000/02	37.0	(36.0 ; 38.7)	18.6	(16.9 ; 20.4)	16.3	(15.1 ; 17.6)
2001/03	38.6	(37.5 ; 40.2)	18.3	(16.7 ; 20.1)	17.0	(15.7 ; 18.3)
2002/04	39.1	(38.0 ; 40.7)	19.9	(18.1 ; 21.8)	18.6	(17.3 ; 20.0)

Year	North West	95% Confidence Interval	Yorkshire and the Humber	95% Confidence Interval	East Midlands	95% Confidence Interval
1991/93	10.5	(9.9 ; 11.1)	6.7	(6.1 ; 7.3)	5.9	(5.3 ; 6.5)
1992/94	11.3	(10.7 ; 12.0)	6.6	(6.0 ; 7.2)	6.0	(5.4 ; 6.6)
1993/95	12.1	(11.5 ; 12.8)	7.0	(6.4 ; 7.6)	6.7	(6.1 ; 7.4)
1994/96	13.2	(12.5 ; 13.9)	7.7	(7.1 ; 8.4)	7.4	(6.8 ; 8.1)
1995/97	14.4	(13.7 ; 15.2)	8.8	(8.2 ; 9.6)	8.4	(7.8 ; 9.2)
1996/98	15.9	(15.1 ; 16.7)	10.1	(9.4 ; 10.9)	8.8	(8.0 ; 9.5)
1997/99	16.8	(16.1 ; 17.7)	11.0	(10.3 ; 11.8)	9.9	(9.2 ; 10.7)
1998/2000	17.3	(16.5 ; 18.1)	11.3	(10.5 ; 12.1)	10.8	(10.1 ; 11.7)
1999/2001	18.0	(17.2 ; 18.9)	11.7	(11.0 ; 12.6)	11.9	(11.1 ; 12.8)
2000/02	18.7	(17.9 ; 19.6)	11.9	(11.1 ; 12.7)	12.0	(11.2 ; 12.9)
2001/03	19.8	(19.0 ; 20.7)	13.3	(12.5 ; 14.2)	12.6	(11.7 ; 13.4)
2002/04	20.4	(19.5 ; 21.2)	14.4	(13.5 ; 15.2)	12.6	(11.8 ; 13.5)

	West Midlands	95% Confidence Interval	East of England	95% Confidence Interval	London	95% Confidence Interval
1991/93	8.0	(7.4 ; 8.6)	6.1	(5.5 ; 6.7)	12.1	(11.4 ; 12.9)
1992/94	8.5	(7.9 ; 9.2)	6.1	(5.6 ; 6.7)	12.0	(11.3 ; 12.8)
1993/95	9.6	(8.9 ; 10.3)	6.0	(5.4 ; 6.5)	12.7	(11.9 ; 13.4)
1994/96	10.3	(9.6 ; 11.0)	6.6	(6.0 ; 7.1)	14.4	(13.6 ; 15.2)
1995/97	11.2	(10.5 ; 11.9)	6.7	(6.2 ; 7.3)	15.5	(14.7 ; 16.3)
1996/98	12.1	(11.3 ; 12.9)	7.8	(7.2 ; 8.4)	16.6	(15.7 ; 17.4)
1997/99	13.4	(12.6 ; 14.2)	8.4	(7.7 ; 9.0)	16.8	(16.0 ; 17.7)
1998/2000	14.4	(13.6 ; 15.3)	9.0	(8.3 ; 9.6)	17.6	(16.7 ; 18.5)
1999/2001	15.0	(14.2 ; 15.9)	9.1	(8.5 ; 9.8)	17.6	(16.8 ; 18.5)
2000/02	15.9	(15.0 ; 16.8)	9.5	(8.9 ; 10.2)	17.8	(16.9 ; 18.7)
2001/03	17.2	(16.3 ; 18.2)	10.1	(9.5 ; 10.8)	17.9	(17.1 ; 18.8)
2002/04	17.8	(16.9 ; 18.7)	10.2	(9.5 ; 10.9)	17.7	(16.9 ; 18.6)

Year	South East	95% Confidence Interval	South West	95% Confidence Interval
1991/93	7.8	(7.3 ; 8.3)	6.5	(5.9 ; 7.1)
1992/94	7.6	(7.1 ; 8.2)	6.8	(6.3 ; 7.5)
1993/95	7.8	(7.3 ; 8.3)	7.9	(7.3 ; 8.6)
1994/96	7.7	(7.2 ; 8.2)	8.8	(8.1 ; 9.5)
1995/97	8.5	(8.0 ; 9.1)	9.1	(8.5 ; 9.8)
1996/98	9.1	(8.6 ; 9.7)	9.3	(8.7 ; 10.1)
1997/99	9.9	(9.4 ; 10.5)	9.9	(9.2 ; 10.6)
1998/2000	10.2	(9.6 ; 10.8)	10.2	(9.5 ; 11.0)
1999/2001	11.3	(10.7 ; 11.9)	10.8	(10.1 ; 11.5)
2000/02	12.1	(11.5 ; 12.7)	11.1	(10.4 ; 11.9)
2001/03	13.1	(12.4 ; 13.7)	11.9	(11.2 ; 12.7)
2002/04	12.7	(12.1 ; 13.4)	12.3	(11.5 ; 13.1)

Appendix 1 continued

Age-standardised alcohol-related death rates with confidence intervals, for males and females by country of the United Kingdom and Government Office Region of England, three-year rolling averages 1991–1993 to 2002–2004

Females

	United Kingdom	95% Confidence Interval	England	95% Confidence Interval	Wales	95% Confidence Interval
1991/93	4.8	(4.7 ; 4.9)	4.4	(4.2 ; 4.5)	4.9	(4.3 ; 5.6)
1992/94	4.9	(4.7 ; 5.0)	4.5	(4.3 ; 4.6)	4.7	(4.1 ; 5.3)
1993/95	5.3	(5.1 ; 5.4)	4.8	(4.6 ; 4.9)	5.3	(4.7 ; 6.0)
1994/96	5.7	(5.5 ; 5.8)	5.1	(4.9 ; 5.2)	5.6	(5.0 ; 6.4)
1995/97	6.1	(6.0 ; 6.3)	5.5	(5.3 ; 5.6)	6.2	(5.5 ; 7.0)
1996/98	6.5	(6.3 ; 6.7)	5.8	(5.6 ; 6.0)	6.2	(5.5 ; 6.9)
1997/99	6.9	(6.7 ; 7.1)	6.2	(6.0 ; 6.4)	6.9	(6.2 ; 7.7)
1998/2000	7.2	(7.0 ; 7.4)	6.4	(6.3 ; 6.6)	7.3	(6.5 ; 8.1)
1999/2001	7.5	(7.3 ; 7.7)	6.7	(6.5 ; 6.9)	8.1	(7.3 ; 8.9)
2000/02	7.7	(7.5 ; 7.9)	6.9	(6.7 ; 7.1)	7.9	(7.2 ; 8.8)
2001/03	8.0	(7.8 ; 8.1)	7.0	(6.9 ; 7.2)	8.0	(7.2 ; 8.8)
2002/04	8.1	(7.9 ; 8.3)	7.2	(7.0 ; 7.4)	8.1	(7.3 ; 8.9)

	Scotland	95% Confidence Interval	N Ireland	95% Confidence Interval	North East	95% Confidence Interval
1991/93	8.1	(7.5 ; 8.8)	4.8	(3.9 ; 5.8)	4.1	(3.5 ; 4.8)
1992/94	8.2	(7.6 ; 8.9)	5.0	(4.1 ; 6.0)	4.1	(3.6 ; 4.8)
1993/95	9.3	(8.7 ; 10.0)	5.8	(4.9 ; 6.9)	4.3	(3.7 ; 5.0)
1994/96	10.7	(10.0 ; 11.4)	6.5	(5.5 ; 7.6)	4.6	(4.0 ; 5.3)
1995/97	11.7	(11.0 ; 12.5)	6.6	(5.6 ; 7.7)	5.5	(4.8 ; 6.3)
1996/98	12.6	(11.8 ; 13.4)	6.4	(5.5 ; 7.5)	6.8	(6.0 ; 7.6)
1997/99	13.3	(12.6 ; 14.2)	6.5	(5.5 ; 7.6)	7.2	(6.4 ; 8.1)
1998/2000	13.9	(13.2 ; 14.8)	6.7	(5.8 ; 7.9)	7.8	(7.0 ; 8.7)
1999/2001	14.5	(13.7 ; 15.4)	7.7	(6.7 ; 8.9)	8.2	(7.3 ; 9.1)
2000/02	15.1	(14.3 ; 16.0)	8.1	(7.1 ; 9.3)	8.4	(7.6 ; 9.4)
2001/03	15.8	(15.0 ; 16.7)	9.0	(7.9 ; 10.2)	9.1	(8.2 ; 10.1)
2002/04	15.7	(15.0 ; 16.7)	9.0	(7.9 ; 10.3)	9.5	(8.6 ; 10.5)

Year	North West	95% Confidence Interval	Yorkshire and the Humber	95% Confidence Interval	East Midlands	95% Confidence Interval
1991/93	5.8	(5.3 ; 6.3)	3.4	(3.1 ; 3.9)	3.5	(3.1 ; 4.0)
1992/94	6.4	(5.9 ; 6.9)	3.4	(3.0 ; 3.8)	3.9	(3.4 ; 4.4)
1993/95	6.8	(6.3 ; 7.3)	3.5	(3.1 ; 3.9)	4.4	(3.9 ; 4.9)
1994/96	7.6	(7.1 ; 8.2)	3.8	(3.4 ; 4.2)	4.7	(4.2 ; 5.3)
1995/97	8.1	(7.6 ; 8.7)	4.6	(4.1 ; 5.1)	5.0	(4.5 ; 5.6)
1996/98	8.4	(7.9 ; 9.0)	5.1	(4.6 ; 5.6)	5.1	(4.6 ; 5.7)
1997/99	8.7	(8.1 ; 9.2)	5.5	(5.0 ; 6.1)	5.6	(5.1 ; 6.2)
1998/2000	8.9	(8.4 ; 9.5)	5.5	(5.0 ; 6.1)	5.9	(5.3 ; 6.5)
1999/2001	9.6	(9.0 ; 10.2)	5.8	(5.3 ; 6.3)	6.2	(5.6 ; 6.8)
2000/02	10.0	(9.4 ; 10.6)	5.9	(5.4 ; 6.4)	6.4	(5.8 ; 7.0)
2001/03	10.3	(9.7 ; 10.9)	6.2	(5.7 ; 6.8)	6.6	(6.0 ; 7.2)
2002/04	10.7	(10.1 ; 11.3)	6.6	(6.0 ; 7.2)	7.3	(6.7 ; 8.0)

	West Midlands	95% Confidence Interval	East of England	95% Confidence Interval	London	95% Confidence Interval
1991/93	4.9	(4.4 ; 5.4)	3.3	(2.9 ; 3.7)	5.6	(5.1 ; 6.0)
1992/94	4.7	(4.3 ; 5.2)	3.2	(2.8 ; 3.6)	5.8	(5.3 ; 6.3)
1993/95	4.9	(4.5 ; 5.5)	3.5	(3.1 ; 3.9)	6.3	(5.8 ; 6.9)
1994/96	5.1	(4.6 ; 5.6)	3.6	(3.2 ; 4.0)	6.7	(6.2 ; 7.3)
1995/97	5.8	(5.3 ; 6.4)	3.8	(3.4 ; 4.2)	6.8	(6.3 ; 7.3)
1996/98	6.2	(5.7 ; 6.8)	4.1	(3.7 ; 4.6)	6.9	(6.4 ; 7.4)
1997/99	6.8	(6.3 ; 7.4)	4.5	(4.1 ; 5.0)	7.3	(6.8 ; 7.9)
1998/2000	6.9	(6.3 ; 7.5)	5.1	(4.6 ; 5.6)	7.3	(6.8 ; 7.8)
1999/2001	7.1	(6.5 ; 7.7)	5.1	(4.7 ; 5.6)	7.3	(6.8 ; 7.8)
2000/02	7.4	(6.9 ; 8.1)	5.4	(4.9 ; 5.9)	7.1	(6.6 ; 7.6)
2001/03	7.8	(7.2 ; 8.4)	5.2	(4.7 ; 5.7)	7.2	(6.7 ; 7.8)
2002/04	8.1	(7.5 ; 8.7)	5.3	(4.9 ; 5.8)	6.9	(6.4 ; 7.5)

	South East	95% Confidence Interval	South West	95% Confidence Interval
1991/93	4.4	(4.0 ; 4.8)	3.5	(3.1 ; 3.9)
1992/94	4.1	(3.8 ; 4.5)	3.6	(3.2 ; 4.1)
1993/95	4.1	(3.8 ; 4.5)	4.1	(3.6 ; 4.5)
1994/96	4.1	(3.8 ; 4.5)	4.4	(4.0 ; 4.9)
1995/97	4.4	(4.0 ; 4.7)	4.6	(4.1 ; 5.1)
1996/98	4.7	(4.4 ; 5.1)	4.8	(4.4 ; 5.3)
1997/99	5.1	(4.7 ; 5.5)	4.9	(4.5 ; 5.4)
1998/2000	5.4	(5.0 ; 5.9)	5.3	(4.9 ; 5.9)
1999/2001	5.7	(5.3 ; 6.1)	5.7	(5.2 ; 6.2)
2000/02	5.8	(5.4 ; 6.2)	5.9	(5.4 ; 6.5)
2001/03	5.9	(5.5 ; 6.4)	5.8	(5.3 ; 6.3)
2002/04	6.1	(5.7 ; 6.5)	5.5	(5.1 ; 6.1)

Pilot linkage of NHS Numbers for Babies data with birth registrations

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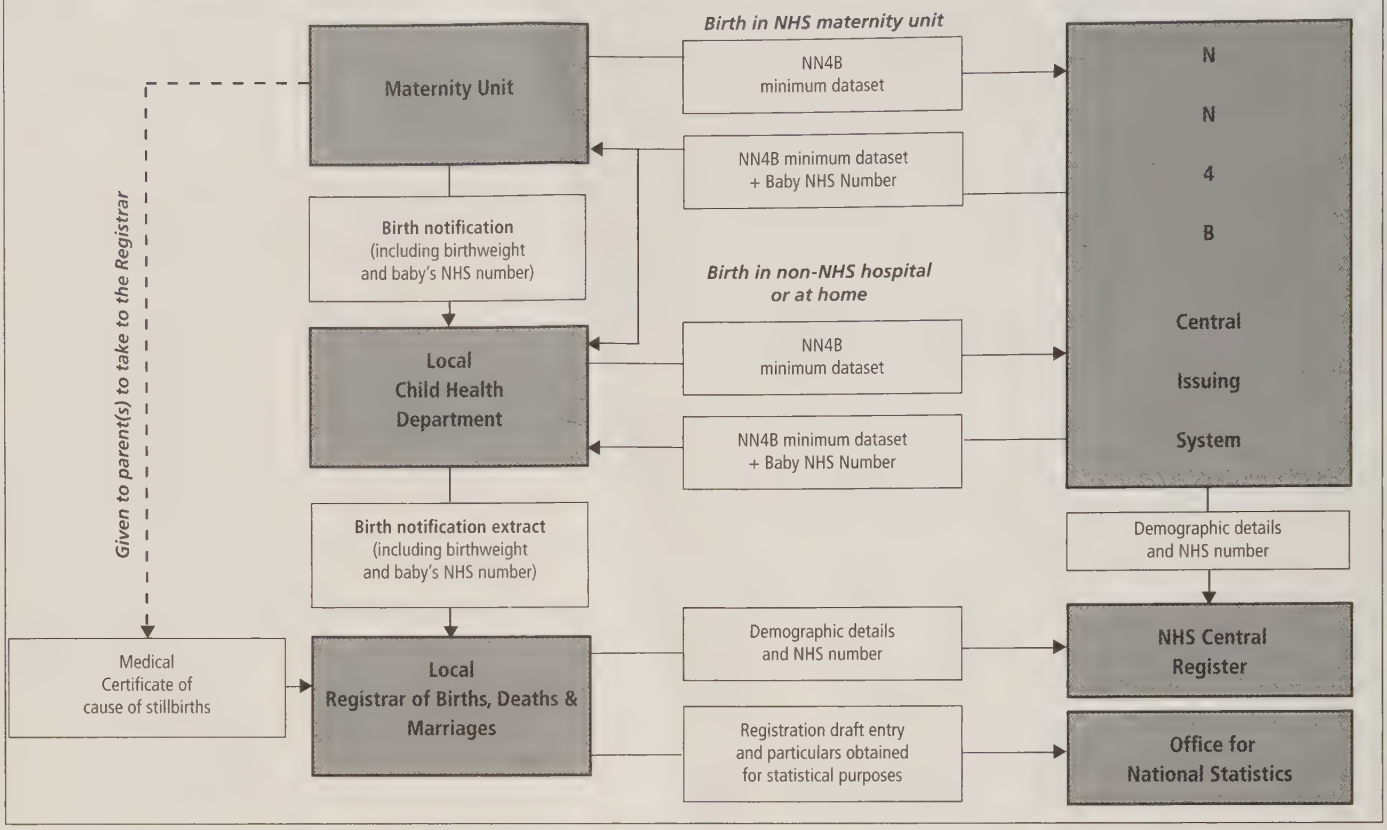
Information about gestational age is important but is not available for live births from registration data. It is, however, collected in NHS Numbers for Babies (NN4B) records. This project investigates the feasibility of linking NN4B data for births in the first quarter of 2005 with birth registration records. Overall 99.8 per cent of NN4B records linked with a registration record. Accuracy of linkage was questioned in 0.9 per cent. Live/stillbirth and multiple birth status were each differently classified in approximately 1 per 1,000 records. Discordance rates for other individual data items ranged from 0.3 per cent for date of birth to 12.9 per cent for postcode. Although needing further investigation, these results justify extending the linkage to the remainder of births in 2005. Linkage would be improved by retaining NHS numbers on stillbirth registration records and avoiding manual transfer of NHS numbers.

Introduction

Information on gestational age at birth is of key importance as babies born preterm, before 37 completed weeks of gestational age, are at particular risk of morbidity and mortality in the early years of life.[1–3] Data about gestational age are needed to monitor trends in preterm birth, inform the development of programmes aimed at primary and secondary prevention of impairment and disability in childhood and to plan services for babies.

Information about births is required by various agencies and data flows in 2005 are summarised in Figure 1. Since 1974 gestational age at birth has been included in the birth notification that is sent by the birth attendant, usually the midwife, to the local child health department.[4] To date ONS has not had access to this information about gestational age of live born babies as it is not recorded at registration in England and Wales. Although birth notification data have been successfully aggregated in regions where the same computer systems were used in all child health units,[5,6] attempts to aggregate these data nationally have had less success. The opportunity to obtain gestational age information nationally was provided by the introduction of the NHS Numbers for Babies Service (NN4B) in 2002, as described below. This involves notifying births by sending a small set of data, including gestational age at birth, to the Central Issuing System that issues NHS numbers to babies born in England, Wales and the Isle of Man. As it was set up as an operational system to issue NHS numbers and was not intended to derive statistical information, the NN4B is a new and untested data source. A collaborative research project was set up in 2004 to link these data with birth and death registration data and develop gestational age statistics for England and Wales.

Figure 1 Flows of information about a birth occurring in 2005


Birth in NHS maternity unit
Maternity Unit
NN4B minimum dataset
NN4B minimum dataset + Baby NHS Number
Birth notification (including birthweight and baby's NHS number)
Given to parent(s) to take to the Registrar
Birth in non-NHS hospital or at home
Local Child Health Department
NN4B minimum dataset
NN4B minimum dataset + Baby NHS Number
N N 4 B Central Issuing System
Birth notification extract (including birthweight and baby's NHS number)
Demographic details and NHS number
Medical Certificate of cause of stillbirths
Local Registrar of Births, Deaths & Marriages
Demographic details and NHS number
NHS Central Register
Registration draft entry and particulars obtained for statistical purposes
Office for National Statistics

This article describes the initial stages of that work. The aims were to link NHS Numbers for Babies notification records and birth registration records and to use the linked records to assess the quality of the data from the two sources in terms of completeness and consistency. This was conducted as a pilot exercise using data for births occurring in the first three months of 2005.

Methods

Source data

Birth registration

By law, live births must be registered within six weeks of birth. The definition of a live birth, the legal basis, the process and a complete list of data items collected are described in detail elsewhere.[7, 8] The information is obtained, usually from one or both parents, by the local registrar. The local child health department (Figure 1) passes some information from the birth notification[9] to the registrar to verify the birth. Since 1975 this has included the baby's birthweight and since October 2002 the NHS number.

The process for registration of stillbirths is similar to that for live birth except that registrars do not retain the NHS number for a stillbirth and the informant will also give the registrar a medical certificate of stillbirth completed by the attending midwife or doctor. This certifies the cause of death and includes an assessment of gestational age at birth and birthweight.

NHS Numbers for Babies Service (NN4B)

The NHS Numbers for Babies Service, which went live in October 2002, issues an NHS number to all registrable births as soon as possible after birth.[10, 11] This process replaced the issuing of NHS number at birth registration. As the NHS number was mandated as the main identifier in communication between NHS agencies, and the development of a lifelong patient record, a mechanism was required for issuing an NHS number as soon as possible after birth. This change facilitated the better accounting of maternity resources, and the rapid collation of information and results, often from more than one centre, about newborn babies who are unwell.

Under this service a standardised set of information about each birth is notified electronically to the Central Issuing System which checks for duplication. If there is no existing record with the same details, the system returns a newly generated NHS number to the NHS agency notifying the birth. If a number has already been issued, the system will return a message indicating that a record with matching details already exists. The user is required to check this record against the details for the baby they have entered and use the existing number if a match is found. If no match is found, then the user will proceed to obtain the NHS number using the NN4B Child Health Browser, or remotely by telephone to the Number Issue Helpdesk if the browser is unavailable.

If the birth takes place in an NHS maternity unit, application for an NHS number is made by that unit (Figure 1). For births attended by independent midwives or in non-NHS hospitals application for an NHS number is usually made by the local child health department. When NHS midwives attend home births or births in non-maternity unit settings applications can be made either through the local maternity unit or the child health department.

Records on the Central Issuing System are held for six months and then deleted. When the NHS number is issued, a copy of the information is sent to the child health system local to the place of birth. Daily messaging sends a limited dataset, including only those items sent by the NHS for birth registration, to the NHS Central Register.

Data used in this analysis

An NN4B record for each NHS number issued to a newborn baby from 1st January 2005 was sent to ONS. For this pilot, records relating to babies born during the three month period from 1st January to 31st March 2005 inclusive were selected from the NN4B and registration data. The registration data are from a provisional extract taken in November 2005. Selected data items available for statistical analysis from each source are listed in Table 1. Approval for the use of these data sources for linkage and the production of statistical data was given by the North East London Ethics Committee and the Patient Information Advisory Group.

Table 1 Selected data items available from NHS Numbers for Babies records and birth registration records

Data items	Data sources	
	NHS Numbers for Babies	Birth registration
Baby NHS number	+	+
Mother's NHS number	+	
Birth date of baby	+	+
Delivery time	+	
Birthweight	+	+
Gestational age at stillbirth	+	+
Gestational age at live birth	+	
Sex of baby	+	+
Number of babies born	+	+
Suspected congenital anomaly – Yes / No	+	
Live or stillbirth	+	+
Cause of death (stillbirths)		+
Previous children to mother within marriage[1]		+
Mother's date of birth	+	+
Baby's postcode of usual residence	+	+
Social class from occupation of mother		+
Marital status of mother		+
Joint or sole registration of birth		+
Social class from occupation of father[2]		+
Ethnic category of baby	+	
Country of birth of mother		+
Country of birth of father[2]		+
Place of birth – (name of hosp, unit)	+	+
Delivery place type (e.g. NHS hosp, home)	+	+
GP practice code	+	

1. Where the child is born within marriage.
2. Available if parents are married or jointly register the birth.

Record linkage

The NHS number, being a unique direct identifier and included in both datasets, was the primary means to link records. By definition, the NN4B data always have an NHS number. If registration records had no NHS number, indirect identifiers had to be used for matching. In order to maximise electronic linkage and minimise time-consuming manual linkage, the variables chosen for linkage were those with the largest number of different values. An iterative process was used, applying baby's date of birth and different combinations of birthweight, mother's date of birth, and postcode of usual residence. Only records remaining unmatched at the end of each matching cycle were entered into the next stage of the matching process.

As the linkage progressed, the number of records remaining unmatched became smaller, thus reducing the chance of there being two babies with the same characteristics. For this reason, matching criteria were made less stringent, requiring two rather than three data items to match. In addition the mother's year of birth was used in place of her date of birth and the first part of the postcode was used rather than full postcode.

The final linkage algorithm involved 15 stages. The combinations of variables and the order in which they were used is shown in Figure 2.

Stillbirths and live births were linked separately to allow the progress of linkage in these two groups to be viewed more easily. Live or stillbirth status acts as a matching variable in stages 2–12. Only singleton births were entered into stages 6–12, where birthweight was omitted, in order to avoid false matches. All live and stillbirth records remaining unmatched were entered into stage 13. The process culminated in the manual examination of the remaining unmatched records, sorted by date of birth. At each stage the number of records entered was checked against the total number of records which were matched and unmatched. A variable denoting the stage of matching was added to the data.

Data quality

As the established source of birth data, birth registration is considered to include all babies because of the civil uses of the birth and stillbirth certificates issued. The data collected at registration are subject to a series of quality control measures.[7]

Assessment of the quality of NN4B data was based on the coverage, completeness and consistency of NN4B data relative to birth registration data. Coverage refers to the extent to which data are available for all registrable births. A crude method compares the number of NN4B records with those for registrations. One-to-one record linkage is a powerful test that the two sources contain records for the same individuals. Completeness refers to the extent to which individual data items have non-missing data. Null and dummy values were included with missing values.

In linked data, the values for data items common to both sources can be compared. If the values from sources for a given variable are identical, the data are described as concordant. If they differ, the data are discordant. Measurement of the extent of data consistency can be used to comment on data quality in one source relative to another if the data item was not used for linkage, if there is non-missing data in data items from each source and if there is no doubt about the accuracy of the record linkage.

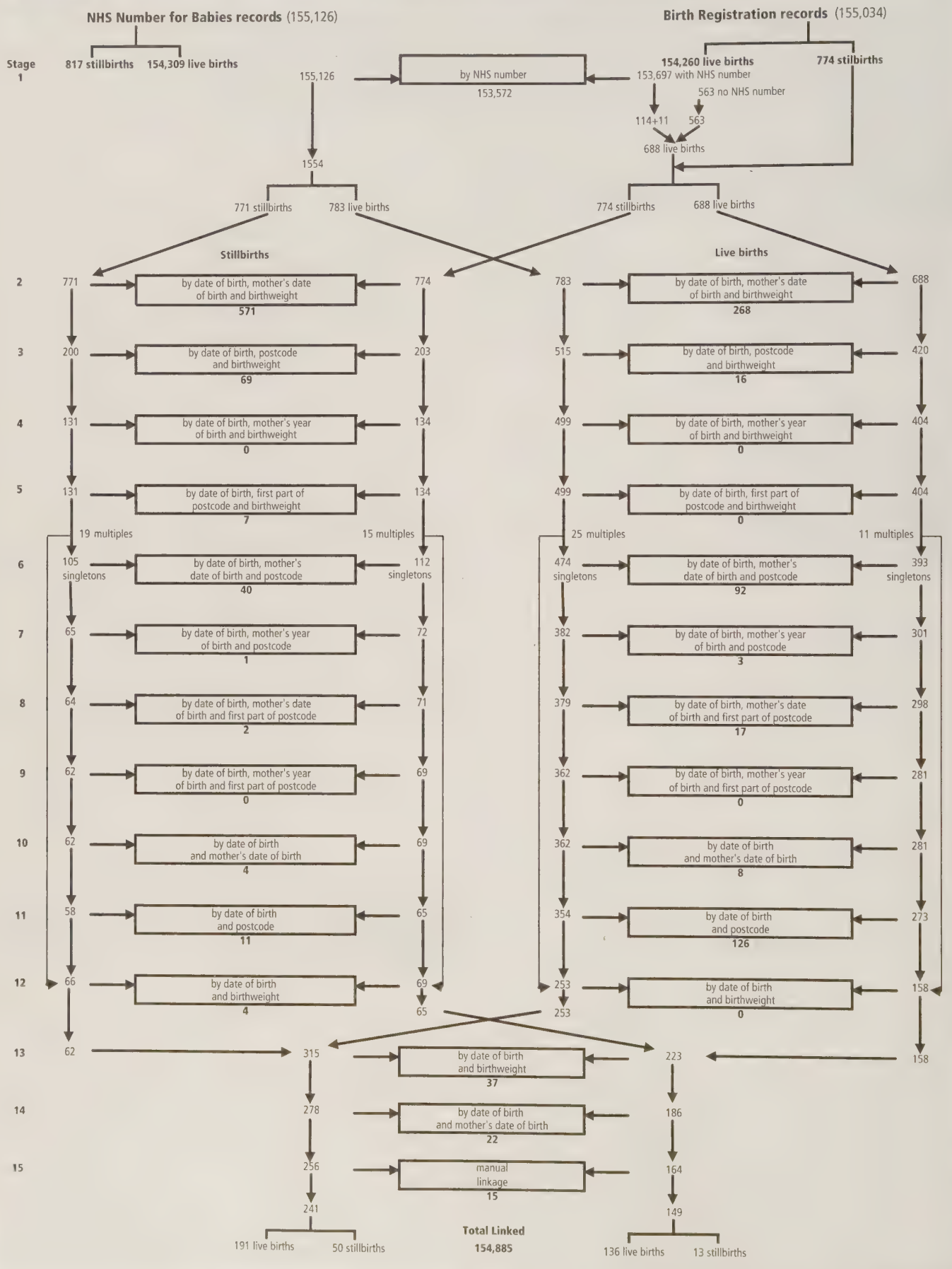
Doubt is raised about the accuracy of record linkage if identical values are not seen in the same data items from both sources. The exception is postcode which can change if the mother moves house before she registers the birth. As some recording errors are to be expected in routine data, allowance is made for data discordance in one data item, but there is serious doubt about the linkage if three or more items of data are discordant.

Data processing, data linkage and analysis were carried out using SAS software.[12]

Table 2 Total number, and number linked, of NHS Numbers for Babies records and birth registration records, by live/stillbirth status

		NHS Numbers for Babies	Birth registration
Total records			
All births		155,126	155,034
Stillbirths		817	774
Live births		154,309	154,260
Number and % linked			
All births	Number	154,885	154,885
	%	*99.8*	*99.9*
Stillbirths	Number	767	761
	%	*93.9*	*98.3*
Live births	Number	154,118	154,124
	%	*99.9*	*99.9*

Figure 2 The record linkage process showing the variables used for matching, number of records entered, matched and remaining at each stage of the linkage


NHS Number for Babies records (155,126)
Birth Registration records (155,034)
Stage 1
817 stillbirths
154,309 live births
155,126
by NHS number
153,572
154,260 live births
153,697 with NHS number
563 no NHS number
774 stillbirths
114+11
563
688 live births
1554
771 stillbirths
783 live births
774 stillbirths
688 live births
Stillbirths
Live births
2 771 by date of birth, mother's date of birth and birthweight 571 774
783 by date of birth, mother's date of birth and birthweight 268 688
3 200 by date of birth, postcode and birthweight 69 203
515 by date of birth, postcode and birthweight 16 420
4 131 by date of birth, mother's year of birth and birthweight 0 134
499 by date of birth, mother's year of birth and birthweight 0 404
5 131 by date of birth, first part of postcode and birthweight 7 134
499 by date of birth, first part of postcode and birthweight 0 404
19 multiples
15 multiples
25 multiples
11 multiples
6 105 singletons by date of birth, mother's date of birth and postcode 40 112 singletons
474 singletons by date of birth, mother's date of birth and postcode 92 393 singletons
7 65 by date of birth, mother's year of birth and postcode 1 72
382 by date of birth, mother's year of birth and postcode 3 301
8 64 by date of birth, mother's date of birth and first part of postcode 2 71
379 by date of birth, mother's date of birth and first part of postcode 17 298
9 62 by date of birth, mother's year of birth and first part of postcode 0 69
362 by date of birth, mother's year of birth and first part of postcode 0 281
10 62 by date of birth and mother's date of birth 4 69
362 by date of birth and mother's date of birth 8 281
11 58 by date of birth and postcode 11 65
354 by date of birth and postcode 126 273
12 66 by date of birth and birthweight 4 69
253 by date of birth and birthweight 0 158
65
253
13 62
315 by date of birth and birthweight 37 223
158
14 278 by date of birth and mother's date of birth 22 186
15 256 manual linkage 15 164
241
149
191 live births
50 stillbirths
Total Linked 154,885
136 live births
13 stillbirths

Results

Record linkage

For babies born in England and Wales from January 1st to March 31st 2005 there were 155,126 NHS Numbers for Babies records and 155,034 birth registration records after one duplicate record was identified and removed from each dataset (Table 2). Of these, there were 817 NN4B records and 774 registrations relating to a stillbirth. Using the algorithm set out in Figure 2 NN4B and registration records were linked as described in detail below.

Stage 1 Matching by NHS number

A total of 153,572 records (99.1 per cent of registration records and 99.0 per cent of NN4B records) were matched using NHS numbers. There were 114 live birth registrations that failed to link in this stage despite having an NHS number. The possibility that registration records might have the same NHS number was not initially considered, but this stage of linkage identified 11 pairs of records for different babies with the same NHS number. In each case, the 'true' registration record was identified as the one with identical data in the common fields on the NN4B record with that NHS number. The NHS numbers for the other registration records were recoded to missing. These 11, plus the 563 live birth registrations with no NHS number, the 114 that failed to link on NHS numbers, and the 774 stillbirth registrations, were entered into the second stage. The 1,554 NN4B records that did not link on NHS numbers were also entered into the second stage.

Stages 2–15 Matching by other variables

Stillbirths and live births were considered separately throughout stages 2–12 inclusive. The second stage of linkage attempted to match records using the baby's date of birth, mother's date of birth and baby's birthweight. Among the stillbirths, of the 771 NN4B and 774 registration records entered at this stage, 571 records linked using the three variables; they represent 74.1 per cent of the NN4B records entered and 73.8 per cent of the registrations. Among the live births, only 268 records, representing 34.2 per cent of the NN4B records and 39.0 per cent of the registrations entered, were linked at this stage. In the third stage, which used date of birth, postcode and birthweight for matching, 69 stillbirths and 16 live births linked. In stages 4–12 a further 69 stillbirths and 246 live births were linked. Higher numbers of matches occurred after birthweight was removed from the matching criteria at stage 6 and mother's date of birth was removed at stage 11. In part, this probably reflects the extent to which data are missing from these fields (Table 4). In stages 13 and 14, where live births and stillbirths were no longer treated separately, a further 59 records were matched using date of birth and either birthweight or mother's date of birth. In the final stage (15), a manual search for matching records linked 15 records from each data source. At the end of the matching process, 241 NN4B records and 149 registration records remained unlinked.

Overall 154,885 records, representing 99.8 per cent of NN4B records and 99.9 per cent of registrations, were linked (Table 2). It was possible

Table 3 Number of linked records with discordant data[1] by number of discordant data items, stage at which linkage occurred, discordance in live or stillbirth status and discordance in multiple birth status

	Linkage using:				Discordance in live/stillbirth status				Discordance in multiple birth status				All records	
	NHS Number		other variables		No		Yes		No		Yes			
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
No data item with discordant data[1]	**128,189**	**83.5**	**984**	**74.9**	**129,109**	**83.4**	**64**	**74.4**	**129,039**	**83.4**	**134**	**79.3**	**129,173**	**83.4**
One data item with discordant data	**24,073**	**15.7**	**306**	**23.3**	**24,357**	**15.7**	**22**	**25.6**	**24,347**	**15.7**	**32**	**18.9**	**24,379**	**15.7**
NHS number	0		25		25		0		25		0		25	
Date of birth	316		3		319		0		319		0		319	
Birthweight	1,795		65		1,856		4		1,853		7		1,860	
Mother's birth date	3,237		38		3,274		1		3,273		2		3,275	
Postcode	18,064		167		18,215		16		18,208		23		18,231	
Sex	661		8		668		1		669		0		669	
Two data items with discordant data	**1,264**	**0.8**	**21**	**1.6**	**1,285**	**0.8**	**0**	**0.0**	**1,284**	**0.8**	**1**	**0.6**	**1,285**	**0.8**
Birthweight/NHS number	0		3		3		0		3		0		3	
Birthweight/date of birth	12		0		12		0		12		0		12	
Mother's birth date/NHS number	0		2		2		0		2		0		2	
Mother's birth date/date of birth	13		0		13		0		13		0		13	
Mother's birth date/birthweight	75		1		76		0		76		0		76	
Postcode/NHS number	0		3		3		0		3		0		3	
Postcode/date of birth	57		0		57		0		57		0		57	
Postcode/birthweight	345		8		353		0		352		1		353	
Postcode/mother's birth date	616		2		618		0		618		0		618	
Sex/date of birth	2		0		2		0		2		0		2	
Sex/birthweight	14		0		14		0		14		0		14	
Sex/mother's birth date	15		1		16		0		16		0		16	
Sex/postcode	115		1		116		0		116		0		116	
Three data items with discordant data	**38**	**0.0**	**2**	**0.2**	**40**	**0.0**	**0**	**0.0**	**39**	**0.0**	**1**	**0.6**	**40**	**0.0**
Four data items with discordant data	**7**	**0.0**	**0**	**0.0**	**7**	**0.0**	**0**	**0.0**	**6**	**0.0**	**1**	**0.6**	**7**	**0.0**
Five data items with discordant data	**1**	**0.0**	**0**	**0.0**	**1**	**0.0**	**0**	**0.0**	**1**	**0.0**	**0**	**0.0**	**1**	**0.0**
Two or more items with discordant data	*1,310*	*0.9*	*23*	*1.8*	*1,333*	*0.9*	*0*	*0.0*	*1,330*	*0.9*	*3*	*1.8*	*1,333*	*0.9*
Two or more items with discordant data, excl postcode	*177*	*0.1*	*9*	*0.7*	*186*	*0.1*	*0*	*0.0*	*184*	*0.1*	*2*	*1.2*	*186*	*0.1*
All records	**153,572**	**100.0**	**1,313**	**100.0**	**154,799**	**100.0**	**86**	**100.0**	**154,716**	**100.0**	**169**	**100.0**	**154,885**	**100.0**

1. Data items assessed for discordance included NHS number, date of birth, birthweight, mother's date of birth, postcode, sex.

to link 153,572 of them using NHS numbers, while the remaining 1,313 were linked using other variables. A smaller proportion of stillbirths than live births linked (98.3 per cent of stillbirth registrations and 93.9 per cent of stillbirth NN4B records) (Table 2).

Accuracy of data linkage

The number of data items with discordant data within the same linked record are tabulated in Table 3 according to the stage at which the records were linked. There was no discordance in any of the data items common to each source in 83.4 per cent of all linked records. This was similar to the 83.5 per cent complete concordance rate for records linked using NHS numbers, but higher than the 74.9 per cent of records with complete concordance where linkage was achieved using indirect identifiers. There is some doubt about the accuracy of record linkage for the 0.9 per cent of all linked records that have discordant data in two or more fields. If discordant postcodes are ignored the proportion of records with doubtful linkage is reduced to 0.1 per cent. In 0.03 per cent of all linked records there is serious doubt about the accuracy of record linkage. In linkage using indirect identifiers there were 1.8 per cent of records where there is doubt about the accuracy of record linkage, or 0.7 per cent of records if discordance in postcode is not counted, and serious doubt for 0.15 per cent.

Data quality

Missing data

Table 4 shows the number and percentage of the linked records which had missing or discordant data in each of the common data fields. A valid date of birth and sex of baby are included in all records. In 0.8 per cent of linked records, the mother's date of birth was missing from the registration data while this was missing from only 0.1 per cent of NN4B records. A higher proportion of records had NN4B birthweight data missing (0.4 per cent) than registration birthweight data (0.2 per cent). One in forty linked records were missing postcode from the NN4B data, while less than 0.01 per cent of records were missing postcode from registration data. Very few records had data missing from both NN4B and registration sources for the same item.

Table 4 Number of linked records with missing or discordant data items in common data fields

Data items	Missing data by data source				Discordant data
	NN4B records	Registration records	Either source	Both sources	
NHS number	0	1,274	1,274	0	35
Date of birth	0	0	0	0	414
Sex of baby	0	0	0	0	836
Birthweight	658	382	980	30	2,354
Mother's date of birth	78	1,306	1,380	2	4,042
Postcode	3,808	41	3,841	4	19,421
	% of all linked records (154,885)				
NHS number	.	0.8	0.8	.	0.0
Date of birth	.	.	.	.	0.3
Sex of baby	.	.	.	.	0.5
Birthweight	0.4	0.2	0.6	0.02	1.5
Mother's date of birth	0.1	0.8	0.9	0.00	2.6
Postcode	2.5	0.0	2.5	0.00	12.5

Discordant data in individual common data items

For a given data item, discordance was assessed only where information was recorded on both registration and NN4B information records. In 83.4 per cent of linked records there were no discordant data for any data item (Table 3). As shown in Table 4, date of birth was discordant in 0.3 per cent of records, sex in 0.5 per cent, birthweight in 1.5 per cent, mother's date of birth in 2.6 per cent and postcode in 12.5 per cent of records. More than one pair of data items may be discordant in any one record. For baby's sex and mother's age in five year bands, there was no discernable difference in the percentage distributions of data from the two sources. Differences in the distributions of birthweight data are described below. NHS numbers were discordant in 35 records.

Discordance in multiple birth status and live or stillbirth status

Looking at multiple births, 4,462 were identified as multiple births in both sources. Of the 4,534 NN4B records identified as a multiple birth, 72 linked with a singleton registration record, while of the 4,559 multiple birth registration records, 97 linked with a singleton NN4B record (Table 5). This results in discordance in data about multiple birth status in 169 (0.11 per cent) linked records. Only 3 of these 169 records had discordant data in more than one other replicated data field (Table 3).

Table 5 Discordance in multiple birth status in linked records

NN4B information	Registration information		
	Singleton	Multiple	Total
Singleton	150,254	97	150,351
Multiple	72	4,462	4,534
Total	150,326	4,559	154,885

There was discordance in live or stillbirth status in 86 records (Tables 3 and 6), representing 0.06 per cent of linked records. Among the 767 NN4B records identified as a stillbirth, 46 linked with a live birth registration while 27 of the 761 stillbirth registrations linked with a live birth notification and 13 with a NN4B record classified as 'dead'. The option 'dead' on NN4B records allows the clinician to indicate that a baby born alive had died before the notification was made (no such category is available in the registration records). These births are counted as live born in the analysis presented in this paper. None of the 86 records with discordant live or stillbirth status had discordant data in more than one other replicated data field (Table 3).

Table 6 Discordance in live or stillbirth status in linked records

NN4B information	Registration information		
	Live birth	Stillbirth	Total
Live	154,032	27	154,059
Dead	46	13	59
Still birth – antepartum	31	500	531
Still birth – indeterminate	4	147	151
Still birth – intrapartum	11	74	85
Total	154,124	761	154,885

Discordance in birthweight

Birthweights in 500g groups from NN4B data were compared with grouped birthweights from birth registration data (Table 7). Overall 98.6 per cent of linked records were in the same 500g birthweight group according to both data sources. However this generally good agreement masks some important differences. Many more records with a stated birthweight (453) are in the under 500g group according to the NN4B data than the birth registration data (179). All the other 500g groups below 5,000g contain more records according to the registration data than the NN4B data. The differences are proportionally larger in the groups under 2,500g. The overall discordance is greater when exact (ungrouped) birthweights are compared (1.5 per cent of linked records (Table 4)) than when birthweights in 500g groups are compared as here (1.4 per cent of linked records).

Table 7 Birthweight distributions of linked records using birthweight data from registration and NHS Number for Babies records

Birthweight (g)	NHS Numbers for Babies data														
	<500	500–999	1,000–1,499	1,500–1,999	2,000–2,499	2,500–2,999	3,000–3,499	3,500–3,999	4,000–4,499	4,500–4,999	5,000–5,499	5,500 and over	Not stated	Total	%
Birth registration data: <500	**162**	3	.	2	.	.	2	.	3	1	.	.	6	179	0.1
500–999	7	**823**	5	1	.	1	.	4	.	.	.	2	36	879	0.6
1,000–1,499	5	2	**1,218**	3	1	1	5	1	.	.	.	.	52	1,288	0.8
1,500–1,999	14	1	6	**2,366**	5	2	2	1	1	.	.	.	51	2,449	1.6
2,000–2,499	17	1	4	5	**7,256**	62	86	44	13	3	1	.	42	7,534	4.9
2,500–2,999	55	1	1	2	25	**26,237**	31	62	2	1	1	.	97	26,515	17.1
3,000–3,499	89	3	2	2	36	40	**54,717**	113	22	1	.	7	171	55,203	35.6
3,500–3,999	68	4	1	.	6	50	119	**43,173**	9	6	.	3	141	43,580	28.1
4,000–4,499	18	2	4	3	1	3	24	8	**14,223**	5	1	3	29	14,324	9.2
4,500–4,999	9	.	.	.	1	.	4	9	11	**2,271**	1	.	3	2,309	1.5
5,000–5,499	1	1	.	.	1	.	1	2	.	.	**216**	.	.	222	0.1
5,500 and over	.	1	.	.	.	.	.	1	.	.	1	**18**	.	21	0.0
Not stated	8	9	2	8	21	57	119	97	27	3	1	.	30	382	0.2
Total	453	851	1,243	2,392	7,353	26,453	55,110	43,515	14,311	2,291	222	33	658	154,885	
%	0.3	0.5	0.8	1.5	4.7	17.1	35.6	28.1	9.2	1.5	0.1	0.0	0.4		

Discordance in gestational age for stillbirths

Information about gestational age at birth is available from both registration and NN4B records for 749 of the 761 linked stillbirth registrations. Table 8 shows that, with few exceptions, there is good agreement between the values for gestational age recorded in the two sources. Gestational ages agreed in 81.8 per cent of these records and differed by one week in 13.5 per cent; only in 4.7 per cent was there a difference of two weeks or more.

Discussion

The linkage of NHS Numbers for Babies data with birth registration records described here was conducted as a pilot study into the feasibility of the process, using data on births in the first quarter of 2005. Importantly, because of the timing of this work, a provisional extract of registration records had to be used. This early extract would not have been through the full range of data cleaning and quality checks that are performed before the data are finalised. Despite using this provisional extract we successfully linked most birth records, and found data items common to both sources to be in agreement in most cases. More specifically, using the NHS number, it was possible to link 99.0 per cent of NHS Numbers for Babies records for births in England and Wales in the first quarter of 2005 with a birth registration record. A further 0.8 per cent of NN4B records could be linked using other variables including date of birth and combinations of birthweight, mother's date of birth and postcode of usual residence. In most instances the linkages were shown to be accurate but in 0.9 per cent of linked records there were discordancies between the two sources in two or more of NHS number, date of birth, birthweight, mother's date of birth, postcode, and sex. Only 0.03 per cent of records had differing data in three or more of these variables. A high proportion of the discordance was in the postcode which can legitimately change if the mother changes address between the babies' birth and registration; it is also probably the variable most subject to recording and reporting errors.

Table 8 Gestational age in stillbirth registrations linked with NHS Number for Babies records

Gestational age (weeks)	Birth registration data																						
	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	Not stated	Total
NHS Numbers for Babies data: 24	**57**	4	1	1	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	65
25	4	**46**	3	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	54
26	.	5	**38**	3	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48
27	.	.	9	**26**	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	37
28	1	.	.	2	**26**	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	33
29	.	.	.	1	1	**23**	3	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	29
30	.	.	.	1	1	2	**28**	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	34
31	.	.	.	.	.	.	1	**26**	3	.	.	.	.	.	.	.	.	.	.	.	.	.	1	31
32	1	.	.	.	.	.	2	2	**19**	.	.	.	.	.	.	.	.	.	.	.	.	.	1	25
33	.	.	.	.	.	.	.	.	3	**23**	3	.	.	.	.	.	.	.	.	.	.	.	.	29
34	.	.	.	.	1	.	.	.	1	2	**30**	5	.	.	.	.	.	.	.	.	.	.	.	39
35	.	.	.	.	.	.	.	.	.	2	4	**22**	3	2	.	.	.	.	.	.	.	.	4	37
36	.	.	.	.	.	.	.	.	.	.	.	1	**29**	2	1	.	.	.	.	.	.	.	.	33
37	.	.	.	.	.	.	.	.	.	.	.	1	1	**51**	3	.	1	.	.	.	.	.	.	57
38	.	.	1	.	.	.	.	.	.	.	.	.	.	4	**47**	3	.	.	.	.	.	.	3	58
39	.	.	.	.	.	.	.	.	.	.	.	.	.	1	3	**41**	1	.	.	.	.	.	.	46
40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	**47**	2	1	.	.	1	.	57
41	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	7	**30**	1	.	.	.	1	41
42	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	**4**	.	.	.	.	5
43	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	2
44	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1
Total	63	55	52	34	30	30	35	30	27	27	38	30	33	62	54	51	57	33	7			1	12	761

Discrepancy in the recording of live/stillbirth status was found in less than 1 in 1,000 linked records. These rates of discordance, although lower than those observed in previous studies linking birth registration data with congenital anomaly notifications[13] and with data in the maternity tail data of the Hospital Episode Statistics,[14] clearly require further investigation. Classification at registration is judged to be the more reliable as a certificate of stillbirth is required to register a stillbirth and registrars should make enquiries before issuing a birth certificate if birth notification details sent from the child health department records the baby as stillborn. Errors made by maternity units in data submitted to NN4B Central Issue System cannot at present be amended. It can be difficult to classify babies who are born with ambiguous life signs and do not survive active resuscitation efforts. In some of these cases live or stillborn status could have been reclassified after sending data to NN4B.

Discrepancy in multiple birth status is found in approximately 1 in 1,000 linked records; as with live/stillbirth status, this is lower than observed in previous linkage studies.[13, 14] In addition to data recording errors there is a difference in definitions. NN4B data asks for the number of babies in this confinement and does not make a distinction between a registerable and a non-registerable birth. At registration multiple birth is flagged if there are two or more babies from one confinement registered. For example, in a twin pregnancy where the delivery is before 24 weeks gestation with one twin born dead and the other alive, only the latter is registered and the dead twin is classified as a late fetal death. Hence, the registration data would indicate only one birth was registered and would not flag it as a multiple. In contrast, the NN4B record would indicate that there were two babies in the confinement.

It would appear that the NHS number has been inaccurately recorded in some records during the process of data transfer from maternity units to registrars. This is evidenced by the finding of 11 registration records with NHS numbers issued to another baby, serious doubt about the accuracy of linkage using NHS numbers in 46 records, and the failure to find 114 of the NHS numbers in birth registrations amongst those issued by NN4B to babies born during that period. NN4B data come from the computer system which issues the NHS number and this number should, by definition, be correct. Further investigation of this is needed especially given the current NHS initiatives to develop systems that use NHS numbers for large-scale record linkage.[15] Mechanisms to ensure that the NHS number is always electronically transferred would help eliminate mismatching due to errors in transcription. The process and quality of linkage could be improved substantially if the NHS number was recorded by ONS for stillbirths.

From the outset, the number of NN4B records exceeded the number of birth registration records for babies born in the same period. The extract of registration records for this project was taken from a provisional dataset to which further birth registrations have since been added. It is also possible that some births that occurred in private hospitals to non-resident foreign nationals were not registered. Minor differences in the number of NN4B and registration records may also occur due to discrepant recording of date of birth for births on the first and last days of any period reported. The possibility that a second NN4B record is generated for the same baby needs to be considered.

Birthweight was missing from the NN4B data in 0.4 per cent of the linked records. This was twice the percentage for which it was missing from the registration data. In the registration data there were more babies weighing 500–2,499g, and considerably fewer weighing under 500g, compared with the NN4B data. These findings are similar to those found in previous studies linking birth registrations with NHS records.[13,14] Some babies, especially those who are very small or ill, may not be weighed immediately after birth and the weight may therefore not be available at the time the birth is notified to the NHS Numbers system. Missing or unusual birthweights, particularly those under 500g for live births, are investigated by ONS by checking with registrars and also with child health departments. The NHS Numbers for Babies data provide the valuable opportunity to check birthweight information against gestational age, where neither data are missing. This will not, however, identify whether the recording error is in birthweight or gestational age.

Gestational age is not recorded at the registration of live births but, as it is recorded on the medical certificate of stillbirth, it is possible to compare the quality of gestational age data for stillbirths between registration and NN4B records. In this study, 82 per cent of linked stillbirth registrations had concordant data for gestational age. This is an improvement on the 64 per cent concordance found between gestational ages recorded for stillbirth registrations and maternity Hospital Episode Statistics records for births in 1997.[14] Estimates of gestational age sent to obtain the NHS number are usually based on calculations based on the date of the woman's last menstrual period, supplemented in many cases by estimates from ultrasound scans. After a stillbirth occurs, details of the pregnancy are often reviewed and the gestational age may be recalculated. Examination of the baby's physical characteristics and x-ray studies may add further information which could alter the estimate of gestational age used to complete the medical certificate of stillbirth. It is possible that in some cases opinion about the gestation at which fetal death occurred and not the gestation at birth was reported.

This pilot work has shown a very good but not perfect degree of linkage. As a result of this pilot work, there may be some revision of the linkage process with the possibility of omitting some of the least productive stages. The next step will be to link data for the whole of 2005 using the final birth registration data. This will show which of our findings result from using a provisional registration extract and which persist even when the final extract is used. Once a full year's data are linked and their quality assessed we will be in a position to exploit the value added to birth registration data for England and Wales by the availability of additional items from this new data source, the NHS Number for Babies Service. It will become possible to enhance the statistics on infant and perinatal mortality, conceptions and fertility with information on the gestational age at live births. After further validation, other items notably data about the ethnicity of the baby and the more detailed information about place of birth recorded in NN4B records are also likely to prove useful.

Conclusions

This pilot study has shown that it is possible to link almost all NN4B records with a birth registration record. Although most records can be linked using NHS numbers we have shown that linkage using NHS numbers alone is not sufficient. This is the case for

- all stillbirth registrations (as they do not include NHS numbers)
- some live birth registrations that have no NHS number
- records that fail to link on the NHS number
- records that do link but where the link appears to be suspect because of discordant information in the two sources

If the NHS Numbers for Babies data, particularly the NHS number, were always transferred electronically to registrars for inclusion in the electronic registration record, and NHS numbers were retained in stillbirth registrations, this would facilitate the process and greatly improve the quality of linkage between NN4B and registration data.

There is a high level of agreement between the data held in the NN4B and registration sources, although this pilot study has thrown up some issues that need further investigation. This will include observing whether these problems persist once data for a full year are linked using the final birth registration data for 2005.

The NHS Numbers for Babies data are a reliable source of birth data which can be used to add gestational age and other data items to those available from birth registration for babies born in England and Wales.

Acknowledgements

This study would not have been possible without the generous help and support from the NHS Numbers for Babies team during the initial stages of obtaining the data. Collaborators in the National Gestational Age project included in addition to the authors, Lesz Lancucki, Maternity Hospital Episode Statistics, Community Health Statistics and Surveys, Health and Social Care Information Centre; Tony Couch, Head of Information Products, Health Solutions Wales; Gwyneth Thomas, Health Statistics and Analysis Unit, Welsh Assembly Government; Shona Golightly and Kate Fleming, Confidential Enquiries into Maternal and Child Health; and Martin Ward Platt, Clinical Director, Regional Maternity Surveys Office, North East Region.

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Teenage conceptions by small area deprivation in England and Wales, 2001–2002

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This article examines the relationship between teenage conceptions and deprivation in England and Wales in 2001–2002 using data at census ward level. Teenage conceptions are defined as births and abortions to women conceiving under the age of 18. Deprivation has been measured using Carstairs scores rebased using the 2001 Census. For the first time at ward level, analysis has differentiated between births and abortions resulting from teenage conceptions. Findings confirm the strong association between teenage conceptions and deprivation and also that deprivation has a strong influence on the likelihood of conceptions leading to either birth or abortion, although regional variations were observed for this relationship.

Introduction

Despite recent declines in teenage conception rates, England and Wales has the highest teenage birth rate in Western Europe. In 2002, the birth rate for women aged under 20 in England and Wales was around four times higher than the Netherlands and twice as high as France and Germany.

Research evidence, particularly from longitudinal studies, shows that teenage pregnancy is associated with poorer outcomes for both young parents and their children.[1,2] Teenage mothers are less likely to finish their education; are more likely to bring up their child alone and in poverty and have a higher risk of poor mental health than older mothers. Infant mortality rates for babies born to teenage mothers are around 60 per cent higher than for babies born to older mothers. The children of teenage mothers have an increased risk of living in poverty and poor quality housing and are more likely to have accidents and behavioural problems.

Given the high teenage pregnancy rate in England and Wales, and the poorer outcomes for teenage parents and their children, in England a Teenage Pregnancy Strategy was launched in 1999 with aims to both halve the under 18 conception rate by 2010 and to support those teenagers that do become a teenage parent to improve outcomes for both them and their children.

The association between teenage pregnancy and deprivation is well established, and is clearly evident in the spatial variation of teenage pregnancy rates across local authorities.[3–6] In 2004, the most deprived 20 per cent of local authorities in England had, on average, an under 18 conception rate of 56 conceptions per 1,000 females aged 15–17, compared to 25 per 1,000 in the 20 per cent least deprived – a difference that has persisted despite recent declines in the national teenage

pregnancy rate. Local studies in Tayside and North East Thames using indices of social deprivation confirm the high correlation between deprivation and pregnancy rates[3,4] and research in Scotland has shown that differentials in teenage pregnancy rates between affluent and deprived areas widened from the 1980s to the 1990s.[7]

However, the relationship between teenage pregnancy rates and deprivation is not entirely consistent across the country; analysis of under 18 conception rates for 2002–2004 has shown that several local authorities have rates far higher or lower than would be expected given their level of deprivation.[1] Research has also shown that the association between deprivation and teenage pregnancy is predominately the result of personal, rather than area, disadvantage. Using the ONS Longitudinal Study, Sloggett and Joshi found that although the risk of teenage pregnancy had a strong linear association with the social deprivation of ward of residence, this association was reduced, especially for girls living in more deprived areas, when adjusted for personal disadvantage.[6] This suggests that personal as well as geographical disadvantage had an influence on variations in teenage pregnancy rates. Similarly, Diamond *et al* (1999) have shown that individual and spatial characteristics are important in influencing levels of teenage conception and their subsequent outcome.[8] They conclude that while social deprivation indices are useful measures, the explanation of higher teenage pregnancy rates in deprived areas is multifactorial, and includes personal factors such as low self-esteem, lower educational and occupational aspirations, less knowledge of contraception and sexual health services and higher gender power differentials. These findings support other research which found the risk of teenage motherhood and fatherhood was highest among individuals experiencing multiple risk factors such as having a mother who was a teenage parent, having emotional problems at age 7 and age 16 and low educational attainment at 16.[9,10]

Although research studies have utilised small-area and individual level data to assess the relationship between teenage conceptions and deprivation, to date much of the analysis using routinely available conception data covering all of England and Wales has only been possible at local authority level. While analysis at local authority level has confirmed the strong association between deprivation and teenage pregnancy, it is also clear that there are considerable variations in teenage pregnancy rates within local authority areas. An analysis of 2001–2002 ward level teenage conception data, which includes conception outcomes, provides an opportunity to see a more refined and detailed picture of the association between teenage pregnancy and deprivation across England and Wales.

Methods and data

Conception statistics are compiled in England and Wales from:

- Maternities resulting in live or still births (a child which has issued forth from its mother after the 24th week of pregnancy, and which did not at any time after becoming completely expelled from its mother breathe or show other signs of life), and
- Legal abortions under the Abortion Act 1967 (abortions).

Miscarriages (spontaneous loss of pregnancy before 24 weeks gestation) and illegal abortions are not included; therefore the figures will underestimate the true number of conceptions.

In England and Wales, the date of conception is estimated using recorded gestation for abortions and stillbirths, and assuming 38 weeks gestation for live births. Age at conception is then estimated from this date.

All rates presented in this article are expressed as per 1,000 population of females aged 15–17 for the under 18 conception rate and per 1000 females aged 13–15 for the under 16 rate. Rates have been calculated using experimental population estimates for wards for mid-2001 and mid-2002 (see link for details on experimental statistics: www.statistics.gov.uk/CCI/nugget.asp?ID=173). All data have been recoded to Standard Table ward boundaries using the postcode of usual residence.

Deprivation is measured here using Carstairs scores because it is based on data from the 2001 Census and also it is ward-based. The Carstairs score was calculated using an unweighted combination of four 2001 Census variables (unemployment, car ownership, overcrowding and social class). The calculation of these scores is described in an article in *Health Statistics Quarterly* 31.[11] The 2001 Carstairs scores for wards in England and Wales are published on the National Statistics website: www.statistics.gov.uk/statbase/Product.asp?vlnk=14068. Wards were ranked by deprivation score and the cumulative population calculated. Wards were allocated to one of ten deciles using equal tenths of the cumulative population. For regional analysis the wards ranked at national level were allocated to one of the quintiles and not deciles as there were very few (less than 20) conceptions leading to abortions in some of the deciles at regional level.

Teenage conceptions by ward deprivation decile in 2001–2002

In England and Wales there were in total 82,941 conceptions to women aged under 18 in 2001 and 2002, equating to a rate of 42.7 conceptions per 1,000 females aged 15-17. In the same years, there were 15,778 conceptions under 16, equivalent to a rate of 7.9 conceptions per 1,000 females aged 13–15.

As expected, ward level under 18 and under 16 conception rates show a strong association with deprivation (Figures 1 and 2). The under 18 conception rate in the most deprived wards (deprivation decile 10) was 70.9, over four times the rate of 16.2 in the least deprived wards (deprivation decile 1), as shown in Table 1. This relationship was more pronounced among the under 16s with an almost fivefold difference between rates in the most and least deprived wards (13.2 per 1,000 compared with 2.7), as shown in Table 2. Around half of all conceptions under 18 were concentrated among the most deprived 30 per cent of the population (Deciles 8–10), with only 14 per cent occurring among the 30 per cent least deprived (Deciles 1–3). The same proportions were evident for under 16 conceptions.

Figure 1 Under 18 conception rate by deprivation decile in England and Wales, 2001 and 2002

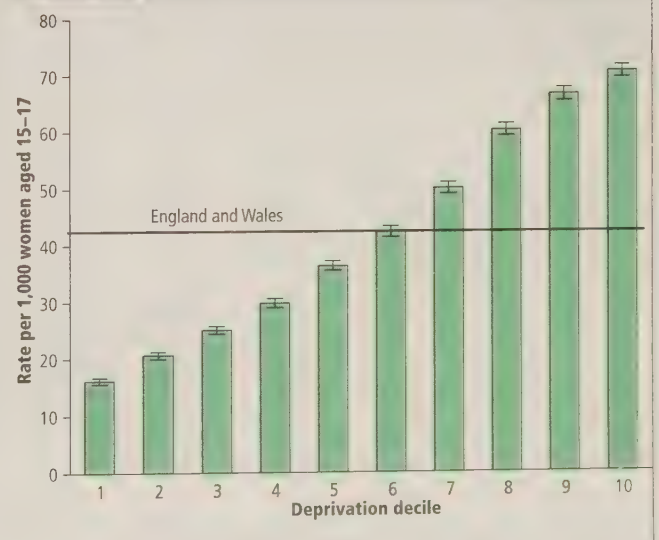

Figure 2 Under 16 conception rate by deprivation decile in England and Wales, 2001 and 2002

Teenage conceptions leading to maternities and abortions by ward deprivation decile, 2001–2002

Moving on from looking at teenage conceptions as a whole to conceptions leading to maternity and abortion rates separately, shows that rates for both of these outcomes increase with deprivation decile (Tables 3 and 4). The conceptions leading to abortion rate in the most deprived areas was 27.8 per 1,000 women aged 15–17, over twice that in the least deprived areas (11.5 per 1,000). For under 16s, the corresponding difference was over threefold between the most and least deprived areas (6.6 compared with 2.1 per 1,000 girls aged 13–15). Differences in conceptions leading to maternity rates across deprivation deciles were even greater, with the under 18 maternity rate nine times higher in the most deprived decile compared with the least deprived (43.1 per 1,000 compared with 4.8). For under 16s, the conceptions leading to maternity rate was 12 times higher in the most deprived decile compared with the least deprived (21.0 per 1,000 compared with 1.7).

It is already known from teenage conception statistics for local authority areas that the percentage of conceptions leading to abortion (known as the abortion proportion) is inversely correlated with deprivation, with less deprived areas tending to have higher abortion proportions – although absolute abortion rates are lower than those in more deprived areas.

Table 1 Under 18 conceptions by ward deprivation decile and 95% confidence intervals, 2001 and 2002

England and Wales

Decile	Number of conceptions	Percentage	Under 18 conception rate[1]	Lower ci	Upper ci	Rate ratio[2]
1 (least deprived)	3,104	3.7	16.2	15.6	16.8	1.0
2	3,856	4.6	20.7	20.0	21.3	1.3
3	4,661	5.6	25.1	24.4	25.8	1.5
4	5,576	6.7	29.9	29.1	30.6	1.8
5	6,796	8.2	36.4	35.6	37.3	2.2
6	8,045	9.7	42.4	41.5	43.4	2.6
7	9,755	11.8	50.2	49.2	51.2	3.1
8	11,927	14.4	60.5	59.4	61.6	3.7
9	13,599	16.4	66.9	65.7	68.0	4.1
10 (most deprived)	15,622	18.8	70.9	69.8	72.0	4.4
England and Wales	82,941	100.0	42.7	42.4	43.0	-

1. Rate per 1,000 women aged 15–17.
2. Calculated by dividing rate for decile x by rate for Decile 1. For example, rate ratio for Decile 2 = rate for decile 2 divided by rate for Decile 1.

Table 2 Under 16 conceptions by ward deprivation decile and 95% confidence intervals, 2001 and 2002

England and Wales

Decile	Number of conceptions	Percentage	Under 16 conception rate[1]	Lower ci	Upper ci	Rate ratio[2]
1 (least deprived)	533	3.4	2.7	2.5	2.9	1.0
2	689	4.4	3.6	3.3	3.8	1.3
3	927	5.9	4.9	4.5	5.2	1.8
4	1,046	6.6	5.5	5.1	5.8	2.0
5	1,330	8.4	6.9	6.6	7.3	2.6
6	1,546	9.8	8.0	7.6	8.4	3.0
7	1,905	12.1	9.6	9.2	10.0	3.6
8	2,351	14.9	11.7	11.2	12.1	4.3
9	2,526	16.0	12.1	11.6	12.6	4.5
10 (most deprived)	2,925	18.5	13.2	12.7	13.7	4.9
England and Wales	15,778	100.0	7.9	7.8	8.1	-

1. Rate per 1,000 women aged 13–15.
2. Calculated by dividing rate for decile x by rate for Decile 1. For example, rate ratio for Decile 2 = rate for Decile 2 divided by rate for Decile 1.

Table 3 Under 18 conceptions leading to maternity and abortion, numbers and rates: by deprivation decile in 2001 and 2002

England and Wales

Decile	Number of conceptions leading to maternity	Conceptions leading to maternity rate[1]	Number of conceptions leading to abortion	Conceptions leading to abortion rate[1]	% of conceptions leading to abortion
1 (least deprived)	911	4.8	2,193	11.5	71
2	1,424	7.6	2,432	13.0	63
3	1,873	10.1	2,788	15.0	60
4	2,539	13.6	3,037	16.3	55
5	3,314	17.8	3,482	18.7	51
6	4,329	22.8	3,716	19.6	46
7	5,607	28.9	4,148	21.4	43
8	7,306	37.1	4,621	23.4	39
9	8,402	41.3	5,197	25.6	38
10 (most deprived)	9,487	43.1	6,135	27.8	39
England and Wales	45,192	23.3	37,749	19.4	46

1. Rate per 1,000 women aged 15–17.

Table 4 Under 16 conceptions leading to maternity and abortion, numbers and rates: by deprivation decile in 2001 and 2002

England and Wales

Decile	Number of conceptions leading to maternity	Conceptions leading to maternity rate[1]	Number of conceptions leading to abortion	Conceptions leading to abortion rate[1]	% of conceptions leading to abortion
1 (least depirved)	122	1.7	411	2.1	77
2	189	2.7	500	2.6	73
3	290	4.1	637	3.3	69
4	390	5.6	656	3.4	63
5	512	7.3	818	4.3	62
6	643	9.2	903	4.7	58
7	881	12.6	1,024	5.2	54
8	1,218	17.4	1,133	5.6	48
9	1,277	18.3	1,249	6.0	49
10 (most deprived)	1,467	21.0	1,458	6.6	50
England and Wales	6,989	100.0	8,789	4.4	56

1. Rate per 1,000 women aged 13–15.

Figure 3 Under 18 conceptions by deprivation quintiles 1 and 5 by regions in England and Wales, 2001 and 2002

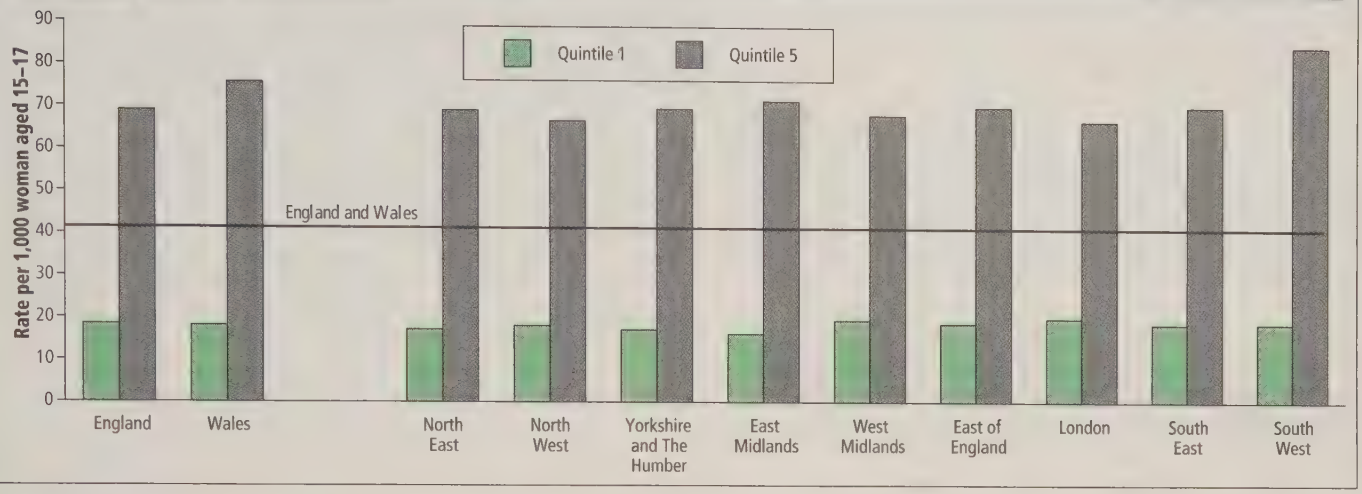

Figure 4 Under 16 conceptions by deprivation quintiles 1 and 5 by regions in England and Wales, 2001 and 2002

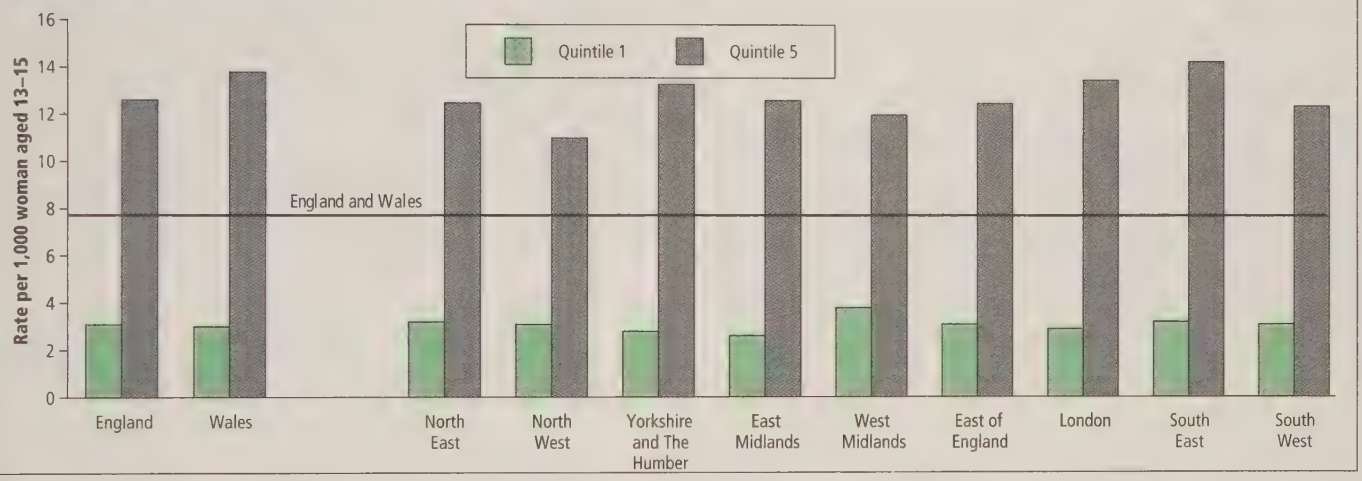

Figure 5 Percentage leading to abortion by deprivation quintiles 1 and 5 by regions in England and Wales, 2001 and 2002

Ward level data confirm the inverse association between abortion proportions and deprivation seen at local authority level (Tables 3 and 4). In the least deprived decile, the percentage of under 18 conceptions leading to abortion was 71 per cent, compared to 39 per cent in the most deprived. For under 16s, the abortion proportion ranged from 77 per cent to 50 per cent across deprivation deciles.

For both under 18 and under 16 data, a linear relationship was observed across deciles 1–8 with the percentage of conceptions leading to abortion declining with increasing deprivation, yet across Deciles 8–10 there was little difference in the abortion proportions. However, when wards in London were excluded from the analysis, for girls aged under 18, a linear relationship was observed across all deprivation deciles, as shown in Table 5.

Table 5 **Under 18 conceptions leading to abortions in England and Wales excluding London, 2001 and 2002**

Decile	% of conceptions leading to abortion
1 (least deprived)	71
2	63
3	59
4	53
5	50
6	45
7	41
8	36
9	34
10 (most deprived)	31

Variations between countries and regions in England and Wales

Teenage conceptions have a marked regional variation in England and Wales. Analyses show that northern regions of England have both higher teenage conception rates and a lower percentage leading to abortion than the southern regions of England. The exception is London, which has a unique pattern where there are both high teenage conception rates and percentages leading to abortion.[8, 9]

A regional analysis of teenage conception rates by deprivation deciles show there was little variation across regions in teenage conception rates in the least and most deprived wards, as shown in Figure 3. Conception rates in the least deprived wards (Quintile 1) varied between 16 per 1,000 women aged 15–17 (in the East Midlands) to 20 per 1,000 (in London) and rates for the most deprived wards (Quintile 5) varied from 67 per 1,000 women aged 15–17 in the North West to 85 per 1,000 in the South West. There were however large differences in teenage conception rates by deprivation deciles within regions. The rate for most deprived wards within each region was about four times higher than least deprived wards.

For girls aged under 16, there were again very little variation in conception rates in the least and most deprived wards by regions in England and Wales, as shown in Figure 4. In the least deprived wards (Quintile 1) the rates varied between 3–4 conceptions per 1,000 girls aged 13–15 and for the most deprived wards (Quintile 5) it varied from 11 to 14 conceptions per 1,000.

In all regions of England and Wales, the percentage of conceptions leading to abortion was higher in the least deprived wards (Figure 5). With the exception of London, the proportion of conceptions leading to abortion in the least deprived wards is approximately twice that in the most deprived for each region. In London the difference is much less because the abortion proportion is higher in the most deprived wards.

Conclusions

The analysis confirms the strong association between teenage conceptions and deprivation, and that the linear relationship, as reported by Sloggett and Joshi, based on ONS longitudinal data in the 1980s, still exists.[6] Looking at all wards in England and Wales, the under 18 teenage conception rate in the least deprived wards is over four times that in the most deprived. For the under 16s, this ratio increases to almost five times.

There is an inverse relationship between deprivation and the proportion of teenage conceptions leading to abortion with a steep gradient by deprivation decile, although proportions are similar across the three most deprived deciles due to high abortion rates in deprived wards in London. Further research is required to understand why the relationship between deprivation and teenage abortion rates seen in London differs to the inverse linear relationship seen in other regions.

Overall, low conception rates and high abortion proportions in the least deprived areas compared with high conception rates and low abortion proportions in the most deprived areas mean that rates of teenage maternities resulting from under 18 conceptions are around ten times higher between the most and least deprived areas. An even steeper gradient was observed for the under 16 conceptions.

These findings have important policy implications, particularly in highlighting the need to target strategies to reduce teenage pregnancy rates to high rate neighbourhoods. The most deprived areas have the highest teenage conception rates and the lowest percentage of conceptions leading to abortions. Consequently, these deprived areas have the highest number of teenage maternities and are therefore disproportionately affected by the poorer outcomes associated with teenage parenthood.

Key findings

- Teenage conceptions are strongly associated with deprivation. Conception rates in the most deprived wards were over four times that in the least deprived wards. This ratio increased to fivefold for the under 16s.
- Areas which are most deprived have the highest proportion of teenage conceptions leading to maternities.
- There was little variation in teenage conception rates in the least and most deprived wards by regions in England and Wales. But there were large differences in rates between wards within regions.

The references to this article appear on the following page.

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Symbols

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Notes to tables

Time series
For most tables, years start at 1971 and then continue at five-year intervals until 1991. Individual years are shown thereafter. If a year is not present the data are not available.

United Kingdom
The United Kingdom comprises England, Wales, Scotland and Northern Ireland. The Channel Islands and the Isle of Man are not part of the United Kingdom.

Population
The estimated resident population of an area includes all people who usually live there, whatever their nationality. Members of HM and US Armed Forces in England and Wales are included on residential basis wherever possible. HM Forces stationed outside England and Wales are not included. Students are taken to be resident at their term time addresses.

Further information on population estimates can be found on the National Statistics website at www.statistics.gov.uk/popest

Live births
For England and Wales, figures relate to the number of births occurring in a period; for Scotland and Northern Ireland, figures relate to births registered in a period. By law, births must be registered within 42 days in England and Wales, within 21 days in Scotland, and within 42 days in Northern Ireland. In England and Wales, where a birth is registered later than the legal time period, and too late to be included in the count for the year of occurrence, it will be included in the count for the following year.

Perinatal mortality
In October 1992 the legal definition of a stillbirth was changed, from a baby born dead after 28 completed weeks of gestation or more, to one born dead after 24 completed weeks of gestation or more.

Period expectation of life
The life tables on which these expectations are based use death rates for the given period to describe mortality levels for each year. Each individual year shown is based on a three-year period, so that for instance 1986 represents 1985–87. More details can be found at www.gad.gov.uk/life_tables/interim_life_tables.htm

Deaths
Figures for England and Wales relate to the number of deaths registered in each year up to 1992, and the number occurring in each year from 1993, though provisional figures are registrations. Figures for both Scotland and Northern Ireland relate to the number of deaths registered in each year.

Coding cause of death
Between 1 January 1984 and 31 December 1992, ONS applied its own interpretation of the International Classification of Diseases Section Rule 3 in the coding of deaths where terminal events and other 'modes of dying' such as cardiac arrest, cardiac failure, certain thrombembolic disorders, and unspecified pneumonia and bronchopneumonia, were stated by the certifier to be the underlying cause of death and other major pathology appeared on the certificate. In these cases ONS Rule 3 allowed the terminal event to be considered a direct sequel to the major pathology and that primary condition was selected as the underlying cause of death. Prior to 1984 and between 1 January 1993 and 31 December 2000, such certificates were coded to the terminal event. National Statistics also introduced automated coding of cause of death in 1993, which may also affect comparisons of deaths by cause from 1993. Further details can be found in the annual volumes Mortality statistics: Cause 1984, Series DH2 no. 11, and Mortality statistics: Cause 1993 (revised) and 1994, Series DH2 no. 21.

From 1 January 2001, under ICD-10, Rule 3 has again been changed – for details see the article in Health Statistics Quarterly no. 13. This has resulted in a fall in the death rates from respiratory diseases, notably pneumonia, and consequently slight rises in the rates for other causes eg. strokes. For details of the major changes between ICD-9 and ICD-10, see the articles in Health Statistics Quarterly 08, 13 and 14.

Age-standardised mortality rates
Directly age-standardised rates make allowances for changes in the age structure of the population. The age-standardised rate for a particular condition is that which would have occurred if the observed age-specific rates for the condition had applied in a given standard population. Tables 2.2 and 6.3 use the European Standard Population. This is a hypothetical population standard which is the same for both males and females allowing standardised rates to be compared for each sex, and between males and females.

Abortions
Figures relate to numbers occurring in a period.

Calculating quarterly rates
The denominators used for calculating quarterly rates for births, conceptions and abortions have been produced from mid-year population estimates and projections by linear interpolation.

Marriages and divorces
Marriages are tabulated according to date of solemnisation. Divorces are tabulated according to date of decree absolute. In Scotland a small number of late divorces from previous years are added to the current year. The term 'divorces' includes decrees of nullity. The fact that a marriage or divorce has taken place in England, Wales, Scotland or Northern Ireland does not necessarily mean that either of the parties is resident there.

Sources
Figures for Scotland and Northern Ireland have been provided by the General Register Office for Scotland and the Northern Ireland Statistics and Research Agency respectively.

Rounding
All figures are rounded independently; constituent parts may not add to totals. Generally numbers and rates per 1,000 population are rounded to one decimal place (eg 123.4); where appropriate, for small figures (below 10.0), two decimal places are given (eg 7.62). Figures which are provisional or estimated are given in less detail (eg 123 or 7.6 respectively) if their reliability does not justify giving the standard amount of detail. Where figures need to be treated with particular caution, an explanation is given as a footnote.

Latest figures
Figures for the latest quarters and years may be provisional and will be updated in future issues when later information becomes available. Where figures are not yet available, cells are left blank.

Table 1.1 Population and vital rates: international

Selected countries

Numbers (thousands)/Rates per thousand

Year	United Kingdom	Austria	Belgium	Cyprus[1]	Czech Republic	Denmark	Estonia	Finland	France	Germany[2]	Greece[3]	Hungary	Irish Republic
Population (thousands)													
1971	55,928	7,501	9,673	..	9,810	4,963	1,369	4,612	51,251	78,313	8,831	10,370	2,992
1976	56,216	7,566	9,818	498	10,094	5,073	1,435	4,726	52,909	78,337	9,167	10,590	3,238
1981	56,357	7,569	9,859	515	10,293	5,121	1,482	4,800	54,182	78,408	9,729	10,712	3,443
1986	56,684	7,588	9,862	545	10,340	5,120	1,534	4,918	55,547	77,720	9,967	10,631	3,543
1991	57,439	7,813	9,979	587	10,309	5,154	1,566	5,014	57,055	79,984	10,247	10,346	3,526
1996	58,164	7,959	10,157	661[12]	10,315	5,262	1,469	5,125	58,026	81,896	10,476	10,193	3,626
1997	58,314	7,968	10,181	670[12]	10,304	5,284	1,458	5,140	58,610	82,061	10,499	10,155	3,661
1998	58,475	7,977	10,203	679[12]	10,295	5,301	1,450	5,153	58,398	82,029	10,516	10,114	3,705
1999	58,684	7,992	10,226	686[12]	10,283	5,327	1,442	5,165	58,623	82,057	10,534	10,068	3,745
2000	58,886	8,012	10,251	694[12]	10,273	5,337	1,372	5,176	58,896	82,183	10,008	10,024	3,787
2001	59,113	8,043	10,287	701[12]	10,224	5,359	1,364	5,188	59,320	82,350	10,020	10,188	3,839
2002	59,322	8,084	10,333	710[12]	10,201	5,374	1,361	5,201	59,680	82,488	10,988	10,159	3,917
2003	59,554	8,118	10,376	721[12]	10,202	5,387	1,354	5,213	60,030	82,534	11,024	10,130	3,996
2004	59,834	8,170	10,396	730[12]	10,212[P]	5,400	1,351[P]	5,230	60,380[P]	82,500	11,041	10,117	4,040
2005	60,209	8,207[17,P]	10,446[17,P]	749[12]	10,240[17,P]	5,411[17,P]	1,350[17,P]	5,250[17,P]	62,519[17,P]	82,470[17,P]	11,083[17,P]	10,080[17,P]	4,130[17,P]
Population changes (per 1,000 per annum)													
1971–76	1.0	1.7	3.0	..	5.8	4.4	9.6	4.9	6.5	0.1	7.6	4.2	16.4
1976–81	0.5	0.1	0.8	6.8	3.9	1.9	6.6	3.1	4.8	0.2	12.3	2.3	12.7
1981–86	1.2	0.5	0.1	11.7	0.9	0.0	7.0	4.9	5.0	– 1.8	4.9	– 1.5	5.8
1986–91	2.7	5.9	2.4	15.4	– 0.6	1.3	4.2	3.9	5.4	5.8	5.6	– 5.4	– 1.0
1991–96	2.5	3.7	3.6	25.2	0.1	4.2	–12.4	3.8	3.4	4.8	4.5	– 3.0	4.3
1997–98	2.8	1.1	2.2	13.4	– 0.9	3.2	– 5.5	2.5	– 3.6	– 0.4	1.6	– 4.0	12.0
1998–99	3.6	1.9	2.3	10.3	– 1.2	4.9	– 5.5	2.3	3.9	0.3	1.7	– 4.5	10.8
1999–2000	3.4	2.5	2.4	11.7	– 1.0	1.9	–48.5	2.1	4.7	1.5	–49.9	– 4.4	11.2
2000–01	3.9	3.9	3.5	10.1	– 4.8	4.1	– 5.8	2.3	7.2	2.0	1.2	16.4	13.7
2001–02	3.5	5.1	4.5	12.8	– 2.2	2.8	– 2.9	2.5	6.1	1.7	97.6	– 2.8	20.3
2002–03	3.9	4.2	4.2	15.5	0.2	2.4	– 4.4	2.3	5.9	0.6	2.4	– 2.9	20.2
2003–04	4.7	6.4	1.9	12.5	0.9	2.4	– 2.2	3.3	5.8	– 0.4	1.5	– 1.3	11.0
2004–05	6.3	4.5	4.8	26.0	2.7	2.0	– 0.7	3.8	35.4	– 0.4	3.8	– 3.7	25.3
Live birth rate (per 1,000 population per annum)													
1971–75	14.1	13.3	13.4	17.7	17.8	14.6	15.4	13.1	16.0	10.5	15.8	16.1	22.2
1976–80	12.5	11.5	12.5	19.0	17.1	12.0	15.0	13.6	14.1	10.5	15.6	15.8	21.3
1981–85	12.9	12.0	12.0	20.2	13.5	10.2	15.6	13.4	14.2	10.7	13.3	12.3	19.2
1986–90	13.7	11.6	12.1	18.8	12.7	11.5	15.5	12.7	13.8	9.8	10.6	11.8	15.8
1991–95	13.2	11.8	12.0	16.9	11.1	13.1	10.7	12.9	12.7	10.9	9.9	11.7	14.0
1996	12.6	11.0	11.5	14.5	8.8	12.9	9.0	11.8	12.6	9.7	9.6	10.3	13.9
1997	12.5	10.4	11.4	13.9	8.8	12.8	8.7	11.5	12.4	9.9	9.7	9.9	14.4
1998	12.3	10.1	11.2	13.1	8.8	12.5	8.4	11.1	12.6	9.7	9.6	9.6	14.5
1999	11.9	9.8	11.1	12.4	8.7	12.4	8.7	11.1	12.7	9.4	11.0	9.4	14.2
2000	11.5	9.8	11.2	12.2	8.8	12.6	9.6	11.0	13.2	9.3	11.7	9.7	14.3
2001	11.3	9.4	11.1	11.6	8.9	12.2	9.3	10.8	13.0	8.9	10.2	9.5	15.1
2002	11.3	9.7	11.2	11.1	9.6	11.9	9.6	10.7	12.8	8.7	9.5	9.5	15.5
2003	11.7	9.5	..	11.2	9.2	12.0	9.6	10.9	12.7	8.6	9.5	9.3	15.4
2004	12.1	9.7	11.2	11.3	9.6	11.9	10.4	11.4	12.7	8.6	..	9.4	15.3
2005	12.0[P]	9.5	..	10.9	10.0	11.9	..	11.0	..	..	..	..	14.8
Death rate (per 1,000 population per annum)													
1971–75	11.8	12.6	12.1	9.9	12.4	10.1	11.1	9.5	10.7	12.3	8.6	11.9	11.0
1976–80	11.9	12.3	11.6	10.4	12.5	10.5	12.1	9.3	10.2	12.2	8.8	12.9	10.2
1981–85	11.7	12.0	11.4	10.0	12.8	11.1	12.3	9.3	10.1	12.0	9.0	13.7	9.4
1986–90	11.4	11.1	10.8	10.2	12.4	11.5	11.9	9.8	9.5	11.6	9.3	13.5	9.1
1991–95	11.1	10.4	10.4	9.0	11.6	11.9	13.9	9.8	9.1	10.8	9.5	14.3	8.8
1996	10.9	10.0	10.3	8.5	10.9	11.6	12.9	9.6	9.2	10.8	9.6	14.0	8.7
1997	10.8	9.8	10.2	8.8	10.9	11.3	12.7	9.6	9.0	10.5	9.5	13.7	8.6
1998	10.8	9.7	10.3	8.0	10.6	11.0	13.4	9.6	9.2	10.4	9.8	13.9	8.5
1999	10.8	9.8	10.3	7.4	10.7	11.1	12.8	9.6	9.2	10.3	10.3	14.2	8.5
2000	10.3	9.6	10.2	7.7	10.6	10.9	13.4	9.5	9.1	10.2	10.2	13.5	8.2
2001	10.2	9.3	10.1	6.9	10.5	10.9	13.6	9.4	9.0	10.1	10.1	13.0	7.9
2002	10.2	9.4	10.2	7.3	10.6	10.9	13.5	9.5	9.2	10.2	10.2	13.1	7.5
2003	10.3	9.5	..	7.2	10.9	10.7	13.4	9.4	9.4	10.3	10.3	13.4	7.2
2004	9.7	9.1	9.8	7.1	10.5	10.3	13.2	9.1	8.4	10.0	..	13.1	7.0
2005	9.7[P]	9.1	..	7.2	10.6	10.2	..	9.1	..	..	..	..	6.6

Note:
Estimated population (mid-year), live birth and death rates up to the latest available data, as given in the *United Nations Demographic Yearbook (2003 Edn), United Nations Monthly Bulletin of Statistics (Sept 2006),* and the *Eurostat Yearbook 2005 (Sept 2006).*

1 Republic of Cyprus - Greek Cypriot controlled area only
2 Including former GDR throughout.
3 Greece - Mid-year population excludes armed forces stationed outside the country but include alien forces stationed in the area.
4 Malta - Including work and resident permit holders and foreigners residing in Malta.
5 Poland - Excluding civilian aliens within the country but including civilian nationals temporarily outside the country. Average year data for 2000 and 2001 contains revised data according to the final results of the population census 2002.
6 Portugal - including the Azores and Madeira islands.
7 Spain - Including the Balearic and Canary Islands.
8 The European Union consists of 25 member countries (EU25) - 1 May 2004 (10 new member countries).
9 Including the Indian held part of Jammu and Kashmir, the final status of which has not yet been determined.
10 Japan - Excluding diplomatic personnel outside the country and foreign military and civilian personnel and their dependants stationed in the area. Rates are based on births to or deaths of Japanese nationals only.
11 USA - Excluding armed forces overseas and civillian citizens absent from the country for extended periods.
12 Indicates population estimates of uncertain reliability.
13 Figures were updated taking into account the results of the 2002 All Russian Population Census.
14 Mid-year estimates have been adjusted for under-enumeration.
15 For statistical purposes the data for China do not include those for the Hong Kong SAR, Macao SAR and Taiwan province of China. Data for the period 1996 to 2000 have been adjusted on the basis of the Population Census of 2000. Data from 2001 to 2004 have been estimated on the basis of the annual national sample surveys of Population Changes. Estimate of uncertain reliability. Death rates for 1999–2003 and birth rates for 2000–2003 were obtained by the Sample Survey of Population Change 2003 in China.
16 Rate is for 1990–1995.
17 As at 1 January.
p provisional.

Table 1.1 continued **Population and vital rates: international**

Selected countries

Numbers (thousands)/Rates per thousand

Year	United Kingdom	Italy	Latvia	Lithuania	Luxem-bourg	Malta[4]	Nether-lands	Poland[5]	Portugal[6]	Slovakia	Slovenia	Spain[7]	Sweden	EU-25[8]
Population (thousands)														
1971	55,928	54,073	2,366	3,160	342	330	13,194	32,800	8,644	4,540	1,732	34,216	8,098	..
1976	56,216	55,718	2,465	3,315	361	330	13,774	34,360	9,356	4,764	1,809	36,118	8,222	420,258
1981	56,357	56,502	2,515	3,422	365	322	14,247	35,902	9,851	4,996	1,910	37,741	8,320	428,563
1986	56,684	56,596	2,588	3,560	368	344	14,572	37,456	10,011	5,179	1,975	38,536	8,370	433,555
1991	57,439	56,751	2,662	3,742	387	358	15,070	38,245	9,871	5,283	2,002	38,920	8,617	440,927
1996	58,164	57,380	2,457	3,615	414	374	15,531	38,618	10,058	5,368	1,991	39,426	8,838	447,405
1997	58,314	57,523	2,433	3,575	419	377	15,611	38,650	10,091	5,379	1,987	39,520	8,845	448,719
1998	58,475	57,588	2,410	3,549	425	379	15,707	38,666	10,129	5,388	1,983	39,649	8,848	449,021
1999	58,684	57,646	2,390	3,524	430	380	15,812	38,654	10,172	5,393	1,978	39,843	8,858	449,914
2000	58,886	57,762	2,373	3,512	436	383	15,926	38,256	10,226	5,399	1,988	40,169	8,872	450,202
2001	59,113	57,948	2,364	3,481	442	385	16,046	38,251	10,293	5,379	1,992	40,614	8,896	452,088
2002	59,322	57,157	2,339	3,469	446	387	16,149	38,232	10,368	5,379	1,996	41,201	8,925	453,876
2003	59,554	57,605	2,332	3,454	450	399	16,225	38,195	10,441	5,379	1,997	41,874	8,958	455,950
2004	59,834	58,180	2,310	3,440	450	400	16,280[P]	38,180	10,500	5,380[P]	2,000	42,345	8,990	442,264[P]
2005	60,209	58,640[17,P]	2,306[17,P]	3,410[17,P]	460[17,P]	403[17,P]	16,310[17,P]	38,174[17,P]	10,410[17,P]	5,390[17,P]	2,000[17,P]	43,430[17,P]	9,030[17,P]	462,107[P]
Population changes (per 1,000 per annum)														
1971–76	1.0	6.1	8.4	9.8	10.7	0.0	8.8	9.5	16.5	9.9	8.9	11.1	3.1	..
1976–81	0.5	2.8	4.1	6.5	2.5	– 4.8	6.9	9.0	10.6	9.7	11.2	9.0	2.4	4.0
1981–86	1.2	0.3	5.8	8.1	1.8	13.7	4.6	8.7	3.2	7.3	6.8	4.2	1.2	2.3
1986–91	2.7	0.5	5.7	10.2	10.2	8.1	6.8	4.2	–2.8	4.0	2.7	2.0	5.9	3.4
1991–96	2.5	2.2	–12.8	– 1.7	13.9	8.4	6.1	2.0	3.8	3.4	–1.1	2.6	5.1	2.9
1997–98	2.8	1.1	– 9.5	– 7.3	14.3	5.3	6.1	0.4	3.8	1.5	–1.0	3.3	0.3	0.7
1998–99	3.6	1.0	– 8.3	– 7.0	11.8	2.6	6.7	– 0.3	4.2	0.7	–3.5	4.9	1.1	2.0
1999–2000	3.4	2.0	– 7.1	– 3.4	14.0	7.9	7.2	–10.3	5.3	0.9	5.1	8.2	1.6	0.6
2000–01	3.9	3.2	– 3.8	– 8.8	13.8	5.2	7.5	– 0.1	6.6	–3.7	2.0	11.1	2.7	4.2
2001–02	3.5	– 13.7	–10.6	– 3.4	9.0	5.2	6.4	– 0.5	7.3	0.0	2.0	14.5	3.3	4.0
2002–03	3.9	7.8	– 3.0	– 4.3	9.0	31.0	4.7	– 1.0	7.0	0.0	0.5	16.3	3.7	4.6
2003–04	4.7	10.0	– 9.4	– 4.1	0.0	2.5	3.4	– 0.4	5.7	0.0	1.5	11.2	3.6	4.2
2004–05	6.3	7.9	– 1.7	– 8.7	22.2	7.5	1.8	– 0.2	–8.6	1.9	0.0	25.6	4.4	9.3
Live birth rate (per 1,000 population per annum)														
1971–75	14.1	16.0	14.4	16.4	11.6	17.5	14.9	17.9	20.3	19.7	16.4	19.2	13.5	..
1976–80	12.5	12.6	13.9	15.4	11.2	17.0	12.6	19.3	17.9	20.3	16.3	17.1	11.6	..
1981–85	12.9	10.6	15.2	16.0	11.6	15.3	12.2	19.0	14.5	18.0	14.2	12.8	11.3	..
1986–90	13.7	9.8	15.3	15.8	12.2	16.0	12.8	15.5	11.9	15.8	12.3	10.8	13.2	..
1991–95	13.2	9.6	10.8	13.1	13.3	14.0	12.8	12.9	11.4	13.3	10.0	9.8	13.3	..
1996	12.6	9.2	7.9	10.5	13.7	13.5	12.2	11.1	11.1	11.2	9.4	9.2	10.8	10.8
1997	12.5	9.4	7.6	10.2	13.1	13.1	12.3	10.7	11.4	11.0	9.1	9.4	10.2	10.7
1998	12.3	9.3	7.5	10.4	12.7	12.2	12.7	10.2	11.4	10.7	9.0	9.3	10.1	10.5
1999	11.9	9.1	8.1	10.3	13.0	11.3	12.7	9.9	11.4	10.4	8.8	9.5	10.0	10.5
2000	11.5	9.4	8.5	9.8	13.1	11.1	13.0	9.9	11.6	10.2	9.1	9.9	10.2	10.6
2001	11.3	9.2	8.3	9.1	12.4	10.0	12.6	9.6	11.0	9.5	8.8	10.0	10.3	10.4
2002	11.3	9.4	8.6	8.7	12.0	9.8	12.5	9.3	11.0	9.5	8.8	10.2	10.7	10.3
2003	11.7	9.4	9.0	8.9	11.8	9.8	12.3	9.2	10.8	9.6	8.7	10.5	11.1	..
2004	12.1	9.7	8.8	8.9	11.8	..	11.9	9.3	10.4	10.0	9.0	10.6	11.2	..
2005	12.0[P]	9.5	9.4	..	11.8	..	11.5	..	..	..	..	10.7	..	..
Death rate (per 1,000 population per annum)														
1971–75	11.8	9.8	11.6	9.0	12.2	9.0	8.3	8.4	11.0	9.4	10.0	8.5	10.5	..
1976–80	11.9	9.7	12.6	10.1	11.5	9.0	8.1	9.2	10.1	9.8	9.8	8.0	10.9	..
1981–85	11.7	9.5	12.8	10.6	11.2	8.2	8.3	9.6	9.6	10.1	10.3	7.7	11.0	..
1986–90	11.4	9.4	12.4	10.3	10.5	7.4	8.5	10.0	9.6	10.1	9.6	8.2	11.1	..
1991–95	11.1	9.7	14.8	12.0	9.8	7.6	8.8	10.2	10.4	9.9	9.7	8.7	10.9	..
1996	10.9	9.6	13.8	11.6	9.4	7.4	8.9	10.0	10.8	9.8	9.4	8.9	10.6	10.1
1997	10.8	9.8	13.8	11.1	9.4	7.7	8.7	9.8	10.6	9.7	9.5	8.9	10.5	10.0
1998	10.8	10.0	14.2	11.5	9.2	8.1	8.8	9.7	10.7	9.9	9.6	9.2	10.5	10.0
1999	10.8	9.9	13.7	11.4	8.8	8.1	8.9	9.9	10.6	9.7	9.5	9.3	10.7	10.0
2000	10.3	9.7	13.6	11.1	8.6	7.7	8.8	9.6	10.3	9.8	9.3	9.0	10.5	9.8
2001	10.2	9.6	14.0	11.6	8.4	7.6	8.7	9.5	10.2	9.7	9.3	8.9	10.5	9.7
2002	10.2	9.8	13.9	11.8	8.4	7.8	8.8	9.4	10.2	9.6	9.4	8.9	10.6	9.8
2003	10.3	10.2	13.9	11.9	9.0	7.7	8.7	9.6	10.4	9.7	9.7	9.2	10.4	..
2004	9.7	9.4	13.9	12.0	7.6	..	8.4	9.5	9.7	9.6	9.3	8.2	10.1	..
2005	9.7[P]	9.7	14.2	..	8.0	..	8.4	..	..	..	..	8.9	..	..

See notes on first page of table.

Table 1.1 continued Population and vital rates: international

Selected countries

Numbers (thousands)/Rates per thousand

Year	United Kingdom	EU–25[8]	Russian Federation	Australia	Canada	New Zealand	China	India[9]	Japan[10]	USA[11]
Population (thousands)										
1971	55,928	..	130,934	13,067	22,026	2,899	852,290 [15]	551,311	105,145	207,661
1976	56,216	420,258	135,027	14,033	23,517	3,163	937,170 [15]	617,248	113,094	218,035
1981	56,357	428,563	139,225	14,923	24,900	3,195	1,008,460 [15]	675,185	117,902	229,958
1986	56,684	433,555	144,154	16,018	26,204	3,317	1,086,733 [15]	767,199	121,672	240,680
1991	57,439	440,927	148,245	17,284	28,031	3,477	1,170,100 [15]	851,897	123,964	252,639
1996	58,164	447,405	148,160[13]	18,311[14]	29,611[14]	3,732	1,217,550 [15]	941,579 [12]	125,757	265,463
1997	58,314	448,719	147,915[13]	18,524[14]	29,907[14]	3,781	1,230,075 [15]	959,792 [12]	126,065	268,008
1998	58,475	449,021	147,671[13]	18,711[14]	30,157[14]	3,815	1,241,935 [15]	978,081 [12]	126,400	270,299
1999	58,684	449,914	147,215[13]	18,926[14]	30,493[14]	3,840	1,252,735 [15]	996,430 [12]	126,631	272,691
2000	58,886	450,202	146,597[13]	19,153[14]	30,770[14]	3,858	1,262,645 [15]	1,016,320 [12]	126,843	282,190
2001	59,113	452,088	145,976[13]	19,413[14]	31,021[14]	3,880	1,271,850 [15]	1,035,070 [12]	127,130	285,110
2002	59,322	453,876	145,306 [13]	19,641[14]	31,373[14]	3,939	1,280,400 [15]	1,050,640 [12]	127,401	287,980
2003	59,554	455,950	144,566 [13]	19,873[14]	31,660[14]	4,009	1,288,400 [15]	1,068.214 [12]	127,649	290,850
2004	59,834	442,264[P]	143,820 [13]	20,110[14]	31,950[14]	4,060	1,296,080 [15]	1,085,600 [12]	127,670	293,660
2005	60,209	462,107[P]	143,500 [13]	..	32,270[14,P]	4,100 [P]	..	1,097,000 [12]	..	296,410
Population changes (per 1,000 per annum)										
1971–76	1.0	..	6.3	14.8	13.5	18.2	19.9	23.9	15.1	10.0
1976–81	0.5	4.0	6.2	12.7	11.8	2.0	15.2	18.8	8.5	10.9
1981–86	1.2	2.3	7.1	14.7	10.5	7.6	15.5	27.3	6.4	9.3
1986–91	2.6	3.4	5.7	15.8	13.9	9.6	15.3	22.1	3.8	9.9
1991–96	2.5	2.9	–1.7	11.9	11.3	14.7	10.3	21.1	2.9	9.6
1997–98	2.8	0.7	– 3.1	10.1	8.4	9.0	8.7	19.1	2.7	8.8
1998–99	3.6	2.0	– 4.2	11.5	11.1	6.6	4.7	18.8	1.8	34.8
1999–2000	3.4	0.6	– 4.2	12.0	9.1	4.7	7.3	20.0	1.7	10.3
2000–01	3.9	4.2	– 4.2	13.6	8.2	5.7	7.3	18.4	2.3	10.3
2001–02	3.5	4.0	– 4.6	11.7	11.3	15.2	6.7	15.0	2.1	10.1
2002–03	3.9	4.6	– 5.1	11.8	9.1	17.8	6.2	16.7	1.9	10.0
2003–04	4.7	4.2	– 5.2	11.9	9.2	12.7	6.0	16.3	0.2	9.7
2004–05	6.3	9.3	– 2.2	..	10.0	9.9	..	10.5	..	9.4
Live birth rate (per 1,000 population per annum)										
1971–75	14.1	..	..	18.8	15.9	20.4	27.2	35.6	18.6	15.3
1976–80	12.5	..	..	15.7	15.5	16.8	18.6	33.4	14.9	15.2
1981–85	12.9	..	..	15.6	15.1	15.8	19.2	..	12.6	15.7
1986–90	13.7	..	..	15.1	14.8	17.1	..	..	10.6	16.0
1991–95	13.2	..	10.2	..	..	..	18.5 [16]	..	..	..
1996	12.6	10.8	8.8	13.9	12.3	15.4	9.8	27.3	9.6	14.7
1997	12.5	10.7	8.6	13.6	11.6	15.4	..	..	9.5	14.5
1998	12.3	10.5	8.7	13.3	11.3	14.5	..	26.2	9.5	14.6
1999	11.9	10.5	8.3	13.1	11.1	14.9	15.2 [15]	26.0	9.3	14.5
2000	11.5	10.6	8.6	13.0	10.7	14.7	14.0 [15]	25.8	9.4	14.7
2001	11.3	10.4	9.0	12.7	10.8	14.4	13.4 [15]	25.4	9.2	14.1
2002	11.3	10.3	9.6	12.8	10.5	13.7	12.9 [15]	25.0	9.1	13.9
2003	11.7	..	10.2	12.6	10.5	14.0	12.4 [15]	24.8	8.8	14.1
2004	12.1	..	10.5	12.7	..	14.3	..	..	8.7	..
2005	12.0[P]	..	..	12.9	..	..	..	..	..	..
Death rate (per 1,000 population per annum)										
1971–75	11.8	..	..	8.2	7.4	8.4	7.3	15.5	6.4	9.1
1976–80	11.9	..	..	7.6	7.2	8.2	6.6	13.8	6.1	8.7
1981–85	11.7	..	..	7.3	7.0	8.1	6.7	..	6.1	8.6
1986–90	11.4	..	..	7.2	7.3	8.2	..	..	6.4	8.7
1991–95	11.1	..	13.7	..	..	..	..	..	..	..
1996	10.9	10.1	14.1	7.0	7.2	7.6	5.0	8.9	7.1	8.7
1997	10.8	10.0	13.7	7.0	7.2	7.3	..	..	7.2	8.6
1998	10.8	10.0	13.5	6.8	7.2	6.9	..	9.0	7.4	8.6
1999	10.8	10.0	14.6	6.8	7.2	7.3	..	8.7	7.8	8.8
2000	10.3	9.8	15.2	6.7	7.1	6.9	6.5 [15]	8.5	7.6	8.7
2001	10.2	9.7	15.4	6.6	7.1	7.2	6.4 [15]	8.4	7.6	8.5
2002	10.2	9.8	16.1	6.8	7.1	7.1	6.4 [15]	8.1	7.7	8.5
2003	10.3	..	16.4	6.7	7.2	7.0	6.4 [15]	8.0	8.0	8.4
2004	9.7	..	16.0	6.6	..	7.0	..	..	8.1	..
2005	9.7 [P]	..	..	6.4	..	..	..	..	..	..

See notes on first page of table.

Table 1.2 Population: national

Constituent countries of the United Kingdom

Numbers (thousands) and percentage age distribution

Mid-year	United Kingdom	Great Britain	England and Wales	England	Wales	Scotland	Northern Ireland
Estimates							
1971	55,928	54,388	49,152	46,412	2,740	5,236	1,540
1976	56,216	54,693	49,459	46,660	2,799	5,233	1,524
1981	56,357	54,815	49,634	46,821	2,813	5,180	1,543
1986	56,684	55,110	49,999	47,188	2,811	5,112	1,574
1991	57,439	55,831	50,748	47,875	2,873	5,083	1,607
1993	57,714	56,078	50,986	48,102	2,884	5,092	1,636
1994	57,862	56,218	51,116	48,229	2,887	5,102	1,644
1995	58,025	56,376	51,272	48,383	2,889	5,104	1,649
1996	58,164	56,503	51,410	48,519	2,891	5,092	1,662
1997	58,314	56,643	51,560	48,665	2,895	5,083	1,671
1998	58,475	56,797	51,720	48,821	2,900	5,077	1,678
1999	58,684	57,005	51,933	49,033	2,901	5,072	1,679
2000	58,886	57,203	52,140	49,233	2,907	5,063	1,683
2001	59,113	57,424	52,360	49,450	2,910	5,064	1,689
2002	59,322	57,625	52,570	49,647	2,923	5,055	1,697
2003	59,554	57,851	52,794	49,856	2,938	5,057	1,703
2004	59,834	58,124	53,046	50,093	2,952	5,078	1,710
2005	60,209	58,485	53,390	50,432	2,959	5,095	1,724
2005 by age group **(percentages)**							
0–4	*5.7*	*5.7*	*5.7*	*5.7*	*5.4*	*5.2*	*6.4*
5–15	*13.6*	*13.5*	*13.6*	*13.5*	*13.8*	*13.0*	*15.7*
16–44	*40.2*	*40.2*	*40.3*	*40.4*	*37.5*	*39.6*	*41.3*
45–64M/59F	*21.8*	*21.9*	*21.8*	*21.7*	*22.8*	*23.0*	*20.4*
65M/60F–74	*11.0*	*11.1*	*11.0*	*10.9*	*12.1*	*11.7*	*10.0*
75 and over	*7.6*	*7.7*	*7.7*	*7.7*	*8.4*	*7.4*	*6.3*
Projections[1]							
2006	60,533	58,800	53,691	50,714	2,977	5,108	1,733
2011	61,892	60,124	55,005	51,967	3,037	5,120	1,767
2016	63,304	61,504	56,378	53,276	3,102	5,126	1,800
2021	64,727	62,897	57,770	54,605	3,165	5,127	1,830
2021 by age groups **(percentages)**							
0–4	*5.6*	*5.6*	*5.6*	*5.6*	*5.3*	*5.0*	*5.9*
5–15	*12.0*	*12.0*	*12.1*	*12.1*	*11.8*	*11.2*	*13.0*
16–44	*36.8*	*36.8*	*36.9*	*37.1*	*34.7*	*35.0*	*37.2*
45–64[2]	*25.9*	*25.9*	*25.8*	*25.8*	*25.9*	*27.6*	*25.6*
65–74[2]	*10.2*	*10.2*	*10.1*	*10.0*	*11.6*	*11.3*	*9.5*
75 and over	*9.5*	*9.5*	*9.5*	*9.4*	*10.6*	*10.0*	*8.6*

Note: Figures may not add exactly due to rounding.

1 National projections based on mid-2004 population estimates.

2 Between 2010 and 2020, state retirement age will change from 65 years for men and 60 years for women to 65 years for both sexes.

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Table 1.3 Population: subnational

Government Office Regions of England

Numbers (thousands) and percentage age distribution

Mid-year	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West
Estimates									
1971	2,679	7,108	4,902	3,652	5,146	4,454	7,529	6,830	4,112
1976	2,671	7,043	4,924	3,774	5,178	4,672	7,089	7,029	4,280
1981	2,636	6,940	4,918	3,853	5,187	4,854	6,806	7,245	4,381
1986	2,594	6,833	4,884	3,908	5,180	4,999	6,774	7,468	4,548
1991	2,587	6,843	4,936	4,011	5,230	5,121	6,829	7,629	4,688
1993	2,594	6,847	4,954	4,056	5,246	5,154	6,844	7,673	4,734
1994	2,589	6,839	4,960	4,072	5,249	5,178	6,874	7,712	4,757
1995	2,583	6,828	4,961	4,092	5,257	5,206	6,913	7,763	4,782
1996	2,576	6,810	4,961	4,108	5,263	5,233	6,974	7,800	4,793
1997	2,568	6,794	4,958	4,120	5,262	5,267	7,015	7,853	4,827
1998	2,561	6,792	4,958	4,133	5,271	5,302	7,065	7,889	4,849
1999	2,550	6,773	4,956	4,152	5,272	5,339	7,154	7,955	4,881
2000	2,543	6,774	4,959	4,168	5,270	5,375	7,237	7,991	4,917
2001	2,540	6,773	4,977	4,190	5,281	5,400	7,322	8,023	4,943
2002	2,538	6,783	4,993	4,223	5,304	5,422	7,371	8,044	4,968
2003	2,539	6,805	5,009	4,252	5,320	5,463	7,388	8,080	4,999
2004	2,545	6,827	5,039	4,280	5,334	5,491	7,429	8,110	5,038
2005	2,558	6,846	5,064	4,306	5,365	5,542	7,518	8,164	5,068
2005 by age group **(percentages)**									
0–4	*5.3*	*5.6*	*5.7*	*5.5*	*5.9*	*5.7*	*6.6*	*5.6*	*5.1*
5–15	*13.3*	*13.9*	*13.8*	*13.6*	*14.0*	*13.7*	*12.7*	*13.7*	*13.2*
16–44	*39.2*	*39.5*	*39.7*	*39.2*	*39.3*	*38.5*	*48.9*	*39.0*	*36.9*
45–64M/59F	*22.8*	*22.1*	*22.0*	*22.6*	*21.8*	*22.4*	*18.1*	*22.4*	*23.0*
65M/60F–74	*11.8*	*11.3*	*11.2*	*11.3*	*11.3*	*11.4*	*8.1*	*11.1*	*12.4*
75 and over	*7.7*	*7.5*	*7.7*	*7.8*	*7.7*	*8.1*	*5.7*	*8.2*	*9.4*
Projections[1]									
2005	2,550	6,852	5,074	4,309	5,356	5,532	7,522	8,162	5,078
2009	2,563	6,926	5,189	4,409	5,420	5,666	7,762	8,320	5,210
2014	2,581	7,028	5,332	4,531	5,504	5,830	8,049	8,518	5,373
2019	2,603	7,141	5,478	4,655	5,594	6,000	8,332	8,734	5,543
2024	2,624	7,247	5,617	4,774	5,680	6,164	8,587	8,953	5,712
2029	2,638	7,331	5,738	4,874	5,749	6,308	8,807	9,150	5,863
2029 by age group **(percentages)**									
0–4	*5.0*	*5.3*	*5.4*	*5.0*	*5.6*	*5.2*	*6.4*	*5.3*	*4.7*
5–15	*11.6*	*12.2*	*12.1*	*11.7*	*12.6*	*12.0*	*12.0*	*12.1*	*11.2*
16–44	*35.1*	*35.7*	*36.2*	*34.1*	*35.3*	*33.8*	*44.9*	*35.1*	*32.7*
45–64[2]	*24.4*	*24.5*	*24.3*	*25.0*	*24.2*	*24.9*	*23.5*	*24.7*	*25.0*
65–74[2]	*12.0*	*11.1*	*10.9*	*11.7*	*10.7*	*11.4*	*7.0*	*10.8*	*12.4*
75 and over	*11.9*	*11.2*	*11.1*	*12.4*	*11.7*	*12.7*	*6.2*	*12.0*	*14.0*

Note: Figures may not add exactly due to rounding.

1 These projections are based on the mid-2004 population estimates and are consistent with the 2004-based national projections produced by the Government Actuary's Department and presented in Table 1.2.

2 Between 2010 and 2020, state retirement age will change from 65 years for men and 60 years for women to 65 years for both sexes.

Tel no. for all queries relating to population estimates:- 01329 813318.

Table 1.4 Population: age and sex

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group														
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64/59	65/60 and over
United Kingdom																
Persons																
1981	56,357	730	2,726	8,147	9,019	8,010	6,774	9,540	2,935	5,195	2,677	..	..	12,543	33,780	10,035
1986	56,684	748	2,886	7,143	9,200	8,007	7,711	9,212	3,069	5,020	2,971	716	..	11,645	34,725	10,313
1991	57,439	790	3,077	7,141	8,168	8,898	7,918	9,500	2,888	5,067	3,119	626	248	11,685	35,197	10,557
1996	58,164	719	3,019	7,544	7,231	9,131	7,958	10,553	2,785	5,066	3,129	711	317	12,018	35,498	10,649
1998	58,475	713	2,930	7,649	7,079	8,948	8,285	10,767	2,835	4,979	3,211	736	344	12,013	35,746	10,717
1999	58,684	704	2,896	7,684	7,090	8,795	8,474	10,887	2,877	4,948	3,230	746	354	12,011	35,928	10,745
2000	58,886	682	2,869	7,652	7,139	8,646	8,678	11,011	2,900	4,940	3,249	755	364	11,959	36,138	10,788
2001	59,113	663	2,819	7,624	7,261	8,475	8,846	11,168	2,884	4,947	3,296	753	377	11,863	36,406	10,845
2002	59,322	661	2,753	7,601	7,403	8,256	9,002	11,316	2,890	4,969	3,345	739	388	11,783	36,622	10,916
2003	59,554	679	2,703	7,542	7,575	8,070	9,108	11,424	2,943	5,005	3,401	706	399	11,712	36,828	11,014
2004	59,834	705	2,684	7,477	7,720	7,937	9,192	11,517	3,021	5,033	3,435	703	409	11,646	37,064	11,125
2005	60,209	716	2,712	7,382	7,871	7,897	9,246	11,624	3,114	5,048	3,424	756	419	11,598	37,368	11,244
Males																
1981	27,412	374	1,400	4,184	4,596	4,035	3,409	4,711	1,376	2,264	922	..	..	6,439	17,646	3,327
1986	27,542	384	1,478	3,664	4,663	4,022	3,864	4,572	1,463	2,206	1,060	166	..	5,968	18,142	3,432
1991	27,909	403	1,572	3,655	4,146	4,432	3,949	4,732	1,390	2,272	1,146	166	46	5,976	18,303	3,630
1996	28,287	369	1,547	3,857	3,652	4,540	3,954	5,244	1,360	2,311	1,187	201	65	6,148	18,375	3,764
1998	28,458	365	1,503	3,916	3,570	4,444	4,109	5,342	1,388	2,293	1,240	215	73	6,151	18,486	3,821
1999	28,578	361	1,485	3,934	3,577	4,367	4,200	5,400	1,409	2,289	1,259	221	77	6,152	18,582	3,845
2000	28,690	350	1,469	3,920	3,606	4,292	4,298	5,457	1,420	2,294	1,278	225	81	6,128	18,685	3,878
2001	28,832	338	1,445	3,906	3,672	4,215	4,382	5,534	1,412	2,308	1,308	227	85	6,077	18,827	3,928
2002	28,963	339	1,409	3,895	3,754	4,107	4,460	5,604	1,414	2,327	1,339	226	89	6,037	18,945	3,982
2003	29,108	349	1,384	3,864	3,850	4,018	4,514	5,653	1,439	2,354	1,371	219	94	6,002	19,068	4,038
2004	29,271	361	1,375	3,833	3,933	3,954	4,553	5,694	1,476	2,374	1,394	224	99	5,970	19,210	4,091
2005	29,479	367	1,389	3,785	4,018	3,933	4,579	5,746	1,519	2,389	1,403	248	103	5,946	19,390	4,143
Females																
1981	28,946	356	1,327	3,963	4,423	3,975	3,365	4,829	1,559	2,931	1,756	..	..	6,104	16,134	6,708
1986	29,142	364	1,408	3,480	4,538	3,985	3,847	4,639	1,606	2,814	1,911	550	..	5,678	16,583	6,881
1991	29,530	387	1,505	3,487	4,021	4,466	3,968	4,769	1,498	2,795	1,972	460	202	5,709	16,894	6,927
1996	29,877	350	1,472	3,687	3,579	4,591	4,005	5,309	1,426	2,755	1,942	509	252	5,870	17,123	6,885
1998	30,017	348	1,427	3,733	3,509	4,504	4,176	5,425	1,447	2,686	1,971	521	271	5,861	17,260	6,895
1999	30,106	343	1,412	3,750	3,513	4,428	4,273	5,487	1,468	2,659	1,971	525	277	5,859	17,346	6,900
2000	30,196	333	1,399	3,732	3,533	4,353	4,380	5,554	1,481	2,646	1,971	530	283	5,832	17,453	6,911
2001	30,281	324	1,375	3,718	3,589	4,260	4,465	5,634	1,473	2,640	1,987	526	292	5,786	17,579	6,917
2002	30,359	323	1,344	3,706	3,649	4,149	4,542	5,712	1,476	2,641	2,006	512	299	5,747	17,677	6,934
2003	30,446	331	1,319	3,677	3,725	4,052	4,594	5,771	1,504	2,651	2,030	486	305	5,710	17,760	6,976
2004	30,563	343	1,309	3,644	3,787	3,983	4,640	5,823	1,545	2,659	2,041	478	310	5,676	17,854	7,034
2005	30,730	349	1,323	3,597	3,853	3,964	4,667	5,878	1,595	2,659	2,022	508	316	5,652	17,978	7,100
England and Wales																
Persons																
1981	49,634	634	2,372	7,085	7,873	7,086	5,996	8,433	2,607	4,619	2,388	383	157	10,910	29,796	8,928
1986	49,999	654	2,522	6,226	8,061	7,052	6,856	8,136	2,725	4,470	2,655	461	182	10,161	30,647	9,190
1991	50,748	698	2,713	6,248	7,165	7,862	7,022	8,407	2,553	4,506	2,790	561	223	10,247	31,100	9,400
1996	51,410	637	2,668	6,636	6,336	8,076	7,017	9,363	2,457	4,496	2,801	639	285	10,584	31,353	9,474
1998	51,720	631	2,594	6,740	6,212	7,925	7,304	9,552	2,503	4,411	2,875	661	311	10,599	31,591	9,530
1999	51,933	625	2,566	6,779	6,228	7,800	7,475	9,656	2,542	4,381	2,891	671	319	10,608	31,771	9,554
2000	52,140	607	2,544	6,757	6,275	7,682	7,661	9,764	2,564	4,372	2,907	680	328	10,572	31,977	9,591
2001	52,360	589	2,502	6,740	6,387	7,536	7,816	9,898	2,549	4,377	2,947	677	340	10,495	32,226	9,639
2002	52,570	589	2,445	6,726	6,520	7,349	7,962	10,027	2,553	4,395	2,990	664	351	10,435	32,435	9,700
2003	52,794	606	2,402	6,677	6,681	7,190	8,062	10,116	2,599	4,427	3,039	634	360	10,381	32,627	9,786
2004	53,046	629	2,388	6,621	6,817	7,073	8,140	10,188	2,669	4,451	3,067	633	370	10,327	32,837	9,882
2005	53,390	639	2,413	6,537	6,959	7,039	8,195	10,272	2,757	4,463	3,056	681	379	10,287	33,114	9,989
Males																
1981	24,160	324	1,218	3,639	4,011	3,569	3,024	4,178	1,227	2,020	825	94	32	5,601	15,589	2,970
1986	24,311	335	1,292	3,194	4,083	3,542	3,438	4,053	1,302	1,972	951	115	35	5,208	16,031	3,072
1991	24,681	356	1,385	3,198	3,638	3,920	3,504	4,199	1,234	2,027	1,029	150	42	5,240	16,193	3,248
1996	25,030	327	1,368	3,393	3,202	4,020	3,489	4,659	1,205	2,059	1,067	182	59	5,416	16,247	3,367
1998	25,201	323	1,331	3,451	3,135	3,942	3,627	4,744	1,230	2,041	1,115	194	66	5,428	16,355	3,417
1999	25,323	321	1,315	3,471	3,144	3,880	3,711	4,793	1,250	2,036	1,132	200	70	5,434	16,452	3,437
2000	25,438	311	1,303	3,462	3,172	3,823	3,802	4,842	1,259	2,040	1,148	204	73	5,416	16,556	3,466
2001	25,574	301	1,281	3,453	3,231	3,758	3,881	4,907	1,252	2,052	1,175	206	77	5,376	16,688	3,510
2002	25,702	302	1,251	3,446	3,307	3,664	3,955	4,967	1,253	2,069	1,203	205	81	5,346	16,799	3,557
2003	25,841	311	1,230	3,422	3,394	3,588	4,006	5,008	1,274	2,092	1,231	199	85	5,320	16,914	3,607
2004	25,988	322	1,223	3,395	3,473	3,531	4,043	5,040	1,307	2,109	1,251	203	90	5,294	17,041	3,653
2005	26,179	327	1,236	3,352	3,553	3,511	4,070	5,082	1,347	2,122	1,259	225	94	5,275	17,205	3,699
Females																
1981	25,474	310	1,154	3,446	3,863	3,517	2,972	4,255	1,380	2,599	1,564	289	126	5,309	14,207	5,958
1986	25,687	319	1,231	3,032	3,978	3,509	3,418	4,083	1,422	2,498	1,704	346	148	4,953	14,616	6,118
1991	26,067	342	1,328	3,050	3,527	3,943	3,517	4,208	1,319	2,479	1,761	411	181	5,007	14,908	6,152
1996	26,381	310	1,300	3,243	3,134	4,056	3,528	4,704	1,252	2,437	1,734	457	227	5,168	15,106	6,107
1998	26,519	308	1,264	3,289	3,077	3,983	3,677	4,808	1,272	2,370	1,760	467	244	5,171	15,235	6,113
1999	26,610	305	1,251	3,308	3,083	3,920	3,763	4,863	1,292	2,345	1,759	472	249	5,175	15,318	6,117
2000	26,702	296	1,241	3,296	3,103	3,859	3,859	4,923	1,304	2,332	1,758	476	255	5,155	15,421	6,126
2001	26,786	288	1,220	3,287	3,156	3,778	3,935	4,992	1,297	2,326	1,771	471	263	5,119	15,538	6,129
2002	26,868	287	1,194	3,280	3,214	3,684	4,007	5,059	1,300	2,326	1,787	460	270	5,090	15,635	6,143
2003	26,953	295	1,172	3,256	3,286	3,602	4,056	5,108	1,325	2,335	1,808	436	275	5,061	15,714	6,179
2004	27,057	307	1,164	3,226	3,344	3,542	4,098	5,148	1,362	2,341	1,816	429	280	5,033	15,796	6,229
2005	27,211	312	1,177	3,185	3,406	3,528	4,124	5,190	1,410	2,342	1,798	456	285	5,013	15,909	6,290

Note: Figures may not add exactly due to rounding.

Tel no. for all enquiries relating to population estimates:- 01329 813318

Table 1.4 continued **Population: age and sex**

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group															
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64/59	65/60 and over
England																
Persons																
1981	46,821	598	2,235	6,678	7,440	6,703	5,663	7,948	2,449	4,347	2,249	362	149	10,285	28,133	8,403
1986	47,188	618	2,380	5,869	7,623	6,682	6,478	7,672	2,559	4,199	2,501	435	172	9,583	28,962	8,643
1991	47,875	660	2,560	5,885	6,772	7,460	6,633	7,920	2,399	4,222	2,626	529	210	9,658	29,390	8,827
1996	48,519	603	2,523	6,255	5,985	7,667	6,638	8,822	2,310	4,217	2,631	602	269	9,985	29,639	8,895
1998	48,821	598	2,453	6,356	5,869	7,524	6,915	8,999	2,353	4,140	2,698	623	293	10,003	29,868	8,950
1999	49,033	592	2,427	6,394	5,881	7,412	7,079	9,097	2,391	4,114	2,713	632	301	10,014	30,044	8,975
2000	49,233	575	2,406	6,375	5,923	7,304	7,257	9,199	2,411	4,107	2,727	641	309	9,980	30,243	9,010
2001	49,450	558	2,366	6,359	6,032	7,171	7,407	9,327	2,395	4,113	2,764	638	321	9,908	30,487	9,055
2002	49,647	558	2,312	6,345	6,155	6,993	7,548	9,448	2,397	4,130	2,804	625	331	9,853	30,683	9,111
2003	49,856	575	2,273	6,300	6,304	6,843	7,643	9,533	2,438	4,159	2,852	596	340	9,804	30,862	9,190
2004	50,093	597	2,260	6,247	6,432	6,732	7,718	9,600	2,503	4,181	2,879	594	349	9,754	31,059	9,280
2005	50,432	606	2,287	6,169	6,570	6,701	7,772	9,682	2,586	4,191	2,870	640	357	9,721	31,330	9,381
Males																
1981	22,795	306	1,147	3,430	3,790	3,377	2,856	3,938	1,154	1,902	777	89	30	5,280	14,717	2,798
1986	22,949	317	1,219	3,010	3,862	3,357	3,249	3,822	1,224	1,853	897	108	33	4,911	15,147	2,891
1991	23,291	336	1,307	3,011	3,439	3,721	3,311	3,957	1,159	1,900	970	141	39	4,938	15,302	3,050
1996	23,629	309	1,294	3,198	3,023	3,818	3,302	4,390	1,133	1,932	1,003	172	55	5,110	15,358	3,161
1998	23,794	306	1,258	3,254	2,960	3,743	3,436	4,470	1,157	1,916	1,047	183	62	5,123	15,462	3,209
1999	23,916	304	1,243	3,274	2,969	3,689	3,517	4,516	1,176	1,913	1,063	188	66	5,129	15,558	3,229
2000	24,030	294	1,232	3,266	2,995	3,638	3,604	4,562	1,184	1,917	1,078	192	69	5,113	15,661	3,256
2001	24,166	285	1,212	3,257	3,053	3,580	3,681	4,624	1,176	1,928	1,103	194	73	5,075	15,793	3,298
2002	24,288	286	1,183	3,251	3,123	3,492	3,753	4,682	1,176	1,944	1,128	193	77	5,047	15,899	3,342
2003	24,415	295	1,164	3,228	3,204	3,418	3,802	4,721	1,195	1,965	1,156	187	80	5,024	16,003	3,388
2004	24,554	306	1,158	3,203	3,278	3,364	3,837	4,752	1,225	1,981	1,175	191	85	5,000	16,122	3,431
2005	24,741	311	1,171	3,164	3,355	3,346	3,866	4,792	1,263	1,992	1,182	212	89	4,984	16,283	3,474
Females																
1981	24,026	292	1,088	3,248	3,650	3,327	2,807	4,009	1,295	2,445	1,472	273	119	5,004	13,416	5,605
1986	24,239	301	1,161	2,859	3,761	3,325	3,229	3,850	1,335	2,346	1,604	326	140	4,672	13,815	5,752
1991	24,584	324	1,253	2,873	3,333	3,739	3,322	3,964	1,239	2,323	1,656	388	171	4,720	14,088	5,777
1996	24,890	293	1,229	3,056	2,961	3,849	3,336	4,432	1,177	2,286	1,628	430	214	4,876	14,281	5,734
1998	25,027	292	1,195	3,102	2,908	3,781	3,479	4,529	1,196	2,224	1,651	440	230	4,880	14,406	5,741
1999	25,117	288	1,183	3,121	2,912	3,724	3,562	4,581	1,215	2,201	1,650	444	235	4,885	14,486	5,746
2000	25,203	281	1,174	3,109	2,928	3,667	3,653	4,637	1,227	2,190	1,649	448	240	4,867	14,582	5,755
2001	25,284	273	1,154	3,102	2,979	3,591	3,726	4,702	1,219	2,185	1,661	444	248	4,834	14,694	5,757
2002	25,358	272	1,129	3,095	3,031	3,501	3,795	4,766	1,220	2,186	1,676	433	254	4,806	14,783	5,769
2003	25,441	280	1,109	3,072	3,100	3,424	3,841	4,812	1,243	2,194	1,696	409	260	4,780	14,859	5,802
2004	25,539	291	1,103	3,044	3,155	3,368	3,881	4,849	1,278	2,200	1,704	403	264	4,754	14,936	5,849
2005	25,691	296	1,116	3,005	3,215	3,356	3,907	4,890	1,322	2,200	1,688	428	269	4,737	15,048	5,906
Wales																
Persons																
1981	2,813	36	136	407	434	383	333	485	158	272	139	21	8	626	1,663	525
1986	2,811	37	143	357	438	369	378	464	166	271	154	26	10	578	1,686	547
1991	2,873	38	153	363	393	402	389	486	154	284	164	32	13	589	1,711	573
1996	2,891	34	146	381	352	409	379	541	147	279	170	37	17	598	1,714	578
1998	2,900	34	141	384	343	401	390	553	150	271	177	38	18	596	1,723	581
1999	2,901	33	139	385	347	388	395	559	151	267	178	39	18	594	1,727	580
2000	2,907	32	138	383	352	378	403	565	152	265	180	39	19	591	1,734	581
2001	2,910	32	136	382	356	365	409	572	154	264	183	39	20	587	1,739	584
2002	2,923	30	132	380	366	356	415	579	156	265	185	39	20	582	1,752	589
2003	2,938	31	129	377	377	347	418	583	161	268	187	38	20	577	1,765	596
2004	2,952	32	127	374	385	341	422	588	166	270	188	39	21	572	1,778	602
2005	2,959	32	127	368	389	338	422	590	171	272	186	42	21	567	1,783	609
Males																
1981	1,365	18	70	209	221	193	168	240	73	118	48	5	2	321	871	173
1986	1,362	19	73	184	221	186	190	231	79	119	54	7	2	297	885	181
1991	1,391	20	78	186	199	199	194	242	74	128	60	8	2	302	891	198
1996	1,401	17	74	195	179	203	187	269	72	128	64	10	3	306	890	206
1998	1,407	17	72	197	174	199	192	274	73	125	68	11	4	305	894	208
1999	1,408	17	72	198	176	192	194	277	74	124	69	11	4	305	895	208
2000	1,408	16	71	196	177	185	198	280	75	124	71	12	4	303	895	210
2001	1,409	16	69	196	179	178	200	283	75	124	73	12	4	301	895	212
2002	1,414	16	68	195	183	172	202	286	77	125	74	12	5	299	900	215
2003	1,426	16	66	194	191	170	204	287	79	127	75	12	5	297	911	219
2004	1,434	16	66	192	196	167	206	289	82	128	76	12	5	294	918	222
2005	1,438	17	65	189	199	165	205	290	84	130	77	13	5	291	922	225
Females																
1981	1,448	18	66	199	213	190	165	246	85	154	91	16	6	305	791	352
1986	1,449	18	70	173	217	184	188	233	87	152	100	20	8	282	801	366
1991	1,482	19	75	177	194	203	195	244	80	156	104	24	10	288	820	375
1996	1,490	16	71	186	173	206	192	272	75	151	106	27	13	293	825	373
1998	1,492	16	69	187	169	202	198	278	76	146	109	27	14	290	829	373
1999	1,493	16	68	187	171	196	201	282	77	144	109	27	15	289	832	371
2000	1,499	15	67	186	175	192	206	285	77	142	109	28	15	288	840	371
2001	1,502	15	66	186	177	187	209	289	78	141	110	27	15	286	844	372
2002	1,509	15	65	185	182	183	212	293	80	140	111	27	16	283	852	374
2003	1,512	15	63	184	186	178	214	296	82	141	112	26	16	281	855	377
2004	1,518	15	62	182	189	174	216	299	85	142	112	26	16	278	859	380
2005	1,521	16	61	180	190	172	217	300	88	142	110	28	16	276	861	384

See notes on first page of table.

Table 1.4 continued **Population: age and sex**

Constituent countries of the United Kingdom

Numbers (thousands)

Mid-year	All ages	Age group														
		Under 1	1–4	5–14	15–24	25–34	35–44	45–59	60–64	65–74	75–84	85–89	90 and over	Under 16	16–64/59	65/60 and over
Scotland																
Persons																
1981	5,180	69	249	780	875	724	603	880	260	460	232	35	14	1,188	3,110	882
1986	5,112	66	257	656	863	739	665	849	273	435	252	42	15	1,061	3,161	890
1991	5,083	66	258	634	746	795	696	853	265	441	259	51	19	1,021	3,151	912
1996	5,092	59	252	643	651	798	722	925	259	448	256	57	24	1,019	3,151	922
1998	5,077	58	239	644	628	766	749	941	261	445	262	59	26	1,003	3,145	929
1999	5,072	56	234	643	625	743	762	951	262	444	265	59	27	995	3,144	933
2000	5,063	53	230	636	628	717	774	962	263	445	267	59	28	985	3,141	937
2001	5,064	52	224	629	633	696	782	979	262	447	272	59	29	970	3,150	944
2002	5,055	51	217	622	639	669	788	993	262	449	276	58	30	955	3,150	950
2003	5,057	52	212	614	648	648	793	1,008	265	452	281	55	31	943	3,156	958
2004	5,078	54	210	609	653	635	796	1,025	270	455	286	54	31	935	3,175	968
2005	5,095	54	211	600	659	629	794	1,042	273	457	286	59	32	929	3,191	975
Males																
1981	2,495	35	128	400	445	364	298	424	118	194	77	8	3	610	1,603	282
1986	2,462	34	131	336	438	371	331	410	127	184	86	10	3	543	1,636	283
1991	2,445	34	132	324	377	394	345	415	124	192	91	13	3	522	1,623	299
1996	2,447	30	128	328	327	392	355	454	122	198	93	15	5	521	1,616	310
1998	2,439	30	122	329	315	374	367	463	124	198	96	16	5	513	1,610	316
1999	2,437	29	120	329	313	362	372	469	125	198	98	16	6	510	1,609	318
2000	2,432	28	118	326	315	347	377	474	125	199	100	17	6	505	1,606	322
2001	2,434	26	115	322	319	337	379	483	125	200	103	17	6	497	1,610	327
2002	2,432	26	111	319	324	325	382	490	125	202	106	17	7	489	1,612	331
2003	2,435	26	108	314	329	315	383	496	126	204	108	16	7	483	1,616	336
2004	2,446	28	107	312	332	310	384	503	129	207	111	16	7	479	1,627	341
2005	2,456	28	107	307	335	309	382	511	131	208	112	18	7	476	1,635	345
Females																
1981	2,685	33	121	380	430	359	305	456	142	265	155	27	11	579	1,506	600
1986	2,649	32	126	320	424	368	334	439	146	250	166	32	12	518	1,525	606
1991	2,639	32	126	309	369	402	351	437	141	249	168	38	16	499	1,528	612
1996	2,645	28	123	315	324	406	367	470	137	250	164	42	20	498	1,535	612
1998	2,638	28	116	315	313	392	382	478	137	248	166	43	21	490	1,535	614
1999	2,635	27	114	314	312	381	390	483	138	246	166	43	22	486	1,535	614
2000	2,631	26	112	310	313	369	397	488	138	246	166	43	22	480	1,535	616
2001	2,630	26	109	307	314	359	403	496	137	246	169	43	23	473	1,540	617
2002	2,623	25	106	303	315	344	406	504	137	247	171	41	23	466	1,538	619
2003	2,623	25	104	300	318	332	410	512	139	248	173	39	24	460	1,540	622
2004	2,632	26	103	297	321	325	412	521	141	248	175	38	24	457	1,549	627
2005	2,639	26	103	293	324	320	411	531	142	249	174	41	25	453	1,556	630
Northern Ireland																
Persons																
1981	1,543	27	106	282	271	200	175	227	68	116	57	..	..	444	874	224
1986	1,574	28	107	261	277	217	190	227	71	115	64	16	..	423	917	234
1991	1,607	26	106	260	256	240	200	241	70	121	69	14	6	417	945	246
1996	1,662	24	99	266	244	257	220	266	70	123	72	15	7	415	993	253
1998	1,678	24	97	264	239	257	231	275	71	122	74	16	7	411	1,010	257
1999	1,679	23	96	262	237	252	237	279	73	122	75	16	7	408	1,014	258
2000	1,683	22	95	259	237	247	243	284	73	123	75	16	7	403	1,020	259
2001	1,689	22	93	255	240	243	248	290	74	123	77	16	7	397	1,030	262
2002	1,697	22	91	253	243	238	251	296	75	125	79	16	7	393	1,037	266
2003	1,703	21	89	251	246	233	254	301	78	126	81	16	8	388	1,044	271
2004	1,710	22	87	248	250	229	256	305	81	127	82	16	8	383	1,052	275
2005	1,724	23	88	245	253	228	257	310	84	128	83	16	9	381	1,064	280
Males																
1981	757	14	54	145	140	102	87	109	32	50	21	..	..	228	454	75
1986	768	14	55	134	142	109	95	110	33	50	23	4	..	217	474	77
1991	783	13	54	133	131	119	100	118	32	53	26	4	1	213	487	83
1996	810	12	51	136	124	128	109	131	33	54	27	4	1	212	511	87
1998	819	12	50	135	121	128	114	135	34	54	28	5	2	211	520	89
1999	818	12	49	134	119	125	117	138	35	54	29	5	2	209	521	89
2000	820	11	49	133	120	122	119	141	35	55	29	5	2	207	524	90
2001	824	11	48	131	122	120	122	144	35	56	30	5	2	204	529	92
2002	829	11	47	130	124	117	123	147	36	56	31	5	2	202	534	94
2003	833	11	46	129	126	115	124	149	38	58	31	5	2	199	538	95
2004	836	11	45	127	128	113	125	151	39	58	32	5	2	197	542	97
2005	844	12	45	126	130	113	126	153	41	59	32	5	2	196	550	99
Females																
1981	786	13	52	137	130	98	88	118	37	66	37	..	..	216	420	150
1986	805	13	52	127	135	107	96	118	38	65	41	12	..	206	442	157
1991	824	13	52	127	125	121	100	123	38	67	44	10	4	203	458	163
1996	851	11	49	130	120	129	110	135	37	69	45	11	6	203	482	167
1998	859	12	47	129	118	129	117	139	37	68	46	11	6	201	490	168
1999	861	11	47	128	117	127	120	141	38	68	46	11	6	199	493	169
2000	862	11	46	126	118	125	124	143	38	68	46	11	6	196	497	169
2001	865	10	45	124	119	123	126	146	38	68	47	11	6	193	501	170
2002	868	11	44	123	119	120	128	149	39	68	48	11	6	191	504	173
2003	870	10	43	122	120	118	129	152	40	68	49	11	6	189	506	175
2004	874	11	42	121	122	116	130	154	42	69	50	11	6	187	509	178
2005	880	11	43	119	123	115	131	157	43	69	50	11	7	186	514	181

See notes on first page of table.

Table 1.5 Population: age, sex and legal marital status

England and Wales

Numbers (thousands)

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
Aged											
16 and over											
1971	36,818	4,173	12,522	187	682	17,563	3,583	12,566	296	2,810	19,255
1976	37,486	4,369	12,511	376	686	17,941	3,597	12,538	533	2,877	19,545
1981	38,724	5,013	12,238	611	698	18,559	4,114	12,284	828	2,939	20,165
1986[1]	39,837	5,625	11,867	917	695	19,103	4,617	12,000	1,165	2,953	20,734
1991	40,501	5,891	11,636	1,187	727	19,441	4,817	11,833	1,459	2,951	21,060
1996	40,827	6,225	11,310	1,346	733	19,614	5,168	11,433	1,730	2,881	21,212
1997	40,966	6,337	11,240	1,379	734	19,690	5,288	11,353	1,781	2,855	21,276
1998	41,121	6,450	11,183	1,405	735	19,773	5,406	11,284	1,827	2,832	21,349
1999	41,325	6,582	11,143	1,433	732	19,890	5,526	11,235	1,875	2,800	21,435
2000	41,569	6,721	11,113	1,456	731	20,022	5,650	11,199	1,927	2,772	21,547
2001	41,865	6,894	11,090	1,482	733	20,198	5,798	11,150	1,975	2,745	21,667
2002	42,135	7,076	11,015	1,535	731	20,357	5,961	11,073	2,035	2,709	21,778
2003	42,413	7,261	10,940	1,590	728	20,520	6,128	11,000	2,096	2,668	21,892
2004	42,719	7,461	10,863	1,644	726	20,694	6,306	10,935	2,156	2,628	22,025
2005	43,103	7,685	10,800	1,695	723	20,904	6,515	10,880	2,215	2,588	22,199
16–19											
1971	2,666	1,327	34	0	0	1,362	1,163	142	0	0	1,305
1976	2,901	1,454	28	0	0	1,482	1,289	129	0	0	1,419
1981	3,310	1,675	20	0	0	1,694	1,523	93	0	0	1,616
1986[1]	3,131	1,587	10	0	0	1,596	1,484	49	1	0	1,535
1991	2,665	1,358	8	0	0	1,366	1,267	32	0	0	1,300
1996	2,402	1,209	6	0	0	1,216	1,164	21	0	0	1,186
1997	2,478	1,246	6	0	0	1,253	1,203	20	1	1	1,225
1998	2,532	1,274	6	1	0	1,281	1,230	20	1	1	1,251
1999	2,543	1,280	6	1	1	1,288	1,234	20	1	1	1,255
2000	2,523	1,276	6	1	1	1,283	1,221	18	1	1	1,240
2001	2,567	1,304	5	1	1	1,312	1,237	16	1	1	1,255
2002	2,633	1,347	4	1	1	1,353	1,266	13	1	1	1,280
2003	2,702	1,386	4	1	1	1,391	1,299	12	0	1	1,311
2004	2,770	1,423	3	0	0	1,427	1,332	11	0	0	1,343
2005	2,807	1,441	2	0	0	1,443	1,355	9	0	0	1,364
20–24											
1971	3,773	1,211	689	3	0	1,904	745	1,113	9	2	1,869
1976	3,395	1,167	557	4	0	1,728	725	925	16	2	1,667
1981	3,744	1,420	466	10	1	1,896	1,007	811	27	2	1,847
1986[1]	4,171	1,768	317	14	0	2,099	1,383	657	32	1	2,072
1991	3,911	1,717	242	12	0	1,971	1,421	490	29	1	1,941
1996	3,291	1,538	117	3	0	1,658	1,361	260	11	1	1,633
1997	3,141	1,479	99	3	0	1,580	1,325	225	9	1	1,561
1998	3,047	1,442	86	2	0	1,530	1,306	201	8	1	1,517
1999	3,047	1,449	78	2	0	1,530	1,320	188	8	1	1,517
2000	3,088	1,470	74	3	0	1,548	1,352	180	8	1	1,540
2001	3,157	1,501	74	3	1	1,579	1,390	178	8	1	1,578
2002	3,211	1,534	69	3	1	1,607	1,428	166	8	1	1,604
2003	3,283	1,573	69	3	1	1,646	1,466	161	8	1	1,637
2004	3,358	1,621	67	3	1	1,692	1,499	156	8	2	1,665
2005	3,454	1,682	65	3	1	1,751	1,545	149	8	2	1,703
25–29											
1971	3,267	431	1,206	16	1	1,654	215	1,367	29	4	1,614
1976	3,758	533	1,326	39	2	1,900	267	1,522	65	5	1,859
1981	3,372	588	1,057	54	1	1,700	331	1,247	89	4	1,671
1986[1]	3,713	835	949	79	1	1,863	527	1,207	113	4	1,850
1991	4,154	1,132	856	82	1	2,071	800	1,158	123	2	2,083
1996	3,950	1,273	650	46	1	1,970	977	906	93	3	1,980
1997	3,877	1,294	595	42	1	1,932	1,012	844	85	3	1,945
1998	3,789	1,304	544	38	1	1,887	1,039	783	77	3	1,902
1999	3,687	1,304	497	34	1	1,836	1,051	725	72	3	1,851
2000	3,605	1,305	459	31	1	1,796	1,065	677	65	3	1,810
2001	3,487	1,293	420	28	1	1,742	1,059	625	58	3	1,745
2002	3,348	1,276	371	26	1	1,674	1,052	567	52	3	1,674
2003	3,262	1,271	337	25	1	1,634	1,053	524	49	2	1,628
2004	3,260	1,292	318	24	1	1,635	1,080	497	47	2	1,625
2005	3,327	1,335	305	23	1	1,664	1,132	483	46	2	1,663

1 The estimates by marital status for 1986 are based on the original mid-2001 population estimates, and are subject to further revision.

Table 1.5 continued **Population: age, sex and legal marital status**

England and Wales

Numbers (thousands)

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
30–34											
1971	2,897	206	1,244	23	3	1,475	111	1,269	34	8	1,422
1976	3,220	236	1,338	55	3	1,632	118	1,388	75	8	1,588
1981	3,715	318	1,451	97	3	1,869	165	1,544	129	9	1,846
1986[1]	3,338	355	1,197	124	2	1,679	206	1,293	154	6	1,660
1991	3,708	520	1,172	155	2	1,849	335	1,330	189	5	1,859
1996	4,126	776	1,135	138	2	2,050	551	1,316	201	7	2,076
1997	4,151	817	1,111	133	2	2,064	589	1,293	198	7	2,088
1998	4,136	848	1,078	127	3	2,056	621	1,259	193	7	2,081
1999	4,113	877	1,043	121	3	2,044	651	1,223	188	7	2,069
2000	4,076	904	1,007	114	2	2,027	679	1,182	181	7	2,049
2001	4,050	934	971	108	2	2,016	711	1,142	174	7	2,033
2002	4,000	961	921	105	2	1,990	743	1,094	167	6	2,010
2003	3,928	981	868	102	2	1,954	767	1,043	159	6	1,974
2004	3,813	987	811	97	2	1,897	777	985	149	5	1,916
2005	3,712	996	758	91	2	1,848	789	932	139	5	1,864
35–44											
1971	5,736	317	2,513	48	13	2,891	201	2,529	66	48	2,845
1976	5,608	286	2,442	104	12	2,843	167	2,427	129	42	2,765
1981	5,996	316	2,519	178	12	3,024	170	2,540	222	41	2,972
1986[1]	6,856	396	2,738	293	12	3,438	213	2,815	350	39	3,418
1991	7,022	477	2,632	384	11	3,504	280	2,760	444	34	3,517
1996	7,017	653	2,426	398	12	3,489	427	2,568	497	36	3,528
1997	7,155	708	2,433	403	12	3,556	472	2,580	511	36	3,599
1998	7,304	768	2,442	405	13	3,627	522	2,596	523	36	3,677
1999	7,475	832	2,459	408	13	3,711	577	2,617	533	37	3,763
2000	7,661	899	2,481	410	12	3,802	635	2,640	547	37	3,859
2001	7,816	963	2,494	411	12	3,881	692	2,649	558	36	3,935
2002	7,962	1,031	2,489	424	12	3,955	751	2,650	571	35	4,007
2003	8,062	1,089	2,471	435	12	4,006	805	2,634	583	34	4,056
2004	8,140	1,142	2,445	444	11	4,043	858	2,614	593	32	4,098
2005	8,195	1,195	2,415	449	11	4,070	911	2,584	597	31	4,124
45–64											
1971	11,887	502	4,995	81	173	5,751	569	4,709	125	733	6,136
1976	11,484	496	4,787	141	160	5,583	462	4,568	188	683	5,901
1981	11,040	480	4,560	218	147	5,405	386	4,358	271	620	5,635
1986[1]	10,860	461	4,422	331	141	5,355	327	4,220	388	570	5,505
1991	10,960	456	4,394	456	127	5,433	292	4,211	521	503	5,527
1996	11,820	528	4,587	628	121	5,864	318	4,466	732	440	5,956
1997	11,927	545	4,593	656	120	5,914	328	4,486	770	430	6,014
1998	12,055	565	4,608	681	121	5,974	340	4,512	807	422	6,080
1999	12,198	589	4,627	706	121	6,043	355	4,541	844	415	6,155
2000	12,328	615	4,638	727	121	6,101	372	4,564	881	410	6,227
2001	12,447	644	4,647	747	121	6,159	391	4,578	918	401	6,289
2002	12,580	671	4,649	780	120	6,220	413	4,596	960	391	6,359
2003	12,715	702	4,647	815	118	6,283	437	4,613	1,002	380	6,433
2004	12,857	736	4,644	850	117	6,347	465	4,628	1,045	371	6,510
2005	13,029	774	4,651	888	116	6,429	498	4,649	1,091	362	6,600
65 and over											
1971	6,592	179	1,840	17	492	2,527	580	1,437	32	2,016	4,065
1976	7,119	197	2,033	33	510	2,773	569	1,579	60	2,138	4,347
1981	7,548	216	2,167	54	534	2,971	533	1,692	90	2,263	4,578
1986[1]	7,768	223	2,234	76	539	3,072	477	1,759	127	2,333	4,696
1991	8,080	231	2,332	99	586	3,248	422	1,853	152	2,405	4,832
1996	8,221	247	2,390	134	597	3,367	369	1,897	196	2,393	4,854
1997	8,237	248	2,404	143	597	3,391	358	1,904	207	2,377	4,845
1998	8,258	250	2,418	152	597	3,417	348	1,913	218	2,362	4,841
1999	8,262	251	2,431	161	594	3,437	338	1,922	230	2,336	4,825
2000	8,287	252	2,449	171	593	3,466	327	1,938	243	2,313	4,821
2001	8,342	254	2,478	183	595	3,510	318	1,960	259	2,295	4,832
2002	8,400	256	2,511	197	595	3,557	308	1,987	276	2,272	4,843
2003	8,461	258	2,544	211	594	3,607	301	2,015	294	2,244	4,854
2004	8,520	259	2,575	225	593	3,653	293	2,044	314	2,216	4,867
2005	8,579	261	2,605	241	592	3,699	286	2,074	334	2,186	4,880

Table 2.1 Vital statistics summary

Constituent countries of the United Kingdom

Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Divorces		Deaths		Infant mortality[5]		Neonatal mortality[6]		Perinatal mortality[7]	
	Number	Rate[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]	Number	Rate[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[8]
United Kingdom																
1976	675.5	12.0	61.1	90	406.0	..	135.4	..	680.8	12.1	9.79	14.5	6.68	9.9	12.25	18.0
1981	730.7	13.0	91.3	125	397.8	49.4	156.4	11.3	658.0	11.7	8.16	11.2	4.93	6.7	8.79	12.0
1986	754.8	13.3	154.3	204	393.9	..	168.2	..	660.7	11.7	7.18	9.5	4.00	5.3	7.31	9.6
1991	792.3	13.8	236.1	298	349.7	..	173.5	..	646.2	11.2	5.82	7.4	3.46	4.4	6.45	8.1
1996	733.2	12.6	260.4	355	317.5	..	171.7	..	636.0	10.9	4.50	6.1	3.00	4.1	6.41	8.7
1999	700.0	11.9	271.6	388	301.1	..	158.7	..	632.1	10.8	4.05	5.8	2.73	3.9	5.79	8.2
2000	679.0	11.5	268.1	395	305.9	..	154.6	..	608.4	10.3	3.79	5.6	2.63	3.9	5.56	8.1
2001	669.1	11.3	268.0	401	286.1	..	156.8	..	602.3	10.2	3.66	5.5	2.43	3.6	5.39	8.0
2002	668.8	11.3	271.7	406	293.0	..	160.5	..	606.2	10.2	3.50	5.2	2.36	3.5	5.57	8.3
2003	695.6	11.7	288.5	415	308.6	..	166.7	..	612.0	10.3	3.69	5.3	2.53	3.6	5.96	8.5
2004	716.0	12.0	302.6	423	313.6	..	167.1	..	583.1	9.7	3.61	5.0	2.46	3.4	6.00	8.3
2005	722.6[P]	12.0[P]	310.2[P]	429[P]	283.7[P]	..	155.1[P]	..	582.7[P]	9.7[P]	3.68[P]	5.1[P]	2.53[P]	3.5[P]	5.82[P]	8.0[P]
2004 March	174.3	11.7	73.6	422	39.7	..	43.1	..	159.7	10.7	0.97	5.5	0.64	3.7	1.51	8.6
June	176.2	11.8	73.2	415	86.1	..	41.5	..	139.3	9.4	0.84	4.8	0.59	3.4	1.48	8.3
Sept	185.1	12.3	78.5	424	129.4	..	42.3	..	135.1	9.0	0.90	4.9	0.64	3.5	1.59	8.5
Dec	180.4	12.0	77.3	429	58.4	..	40.2	..	149.0	9.9	0.90	5.0	0.58	3.2	1.43	7.9
2005 March	173.2[P]	11.7[P]	74.5[P]	430[P]	34.9[P]	..	39.4	..	165.1[P]	11.1[P]	0.95[P]	5.5[P]	0.64[P]	3.7[P]	1.39[P]	8.0[P]
June	179.0[P]	11.9[P]	75.0[P]	419[P]	78.7[P]	..	40.0	..	141.1[P]	9.5[P]	0.93[P]	5.2[P]	0.64[P]	3.6[P]	1.53[P]	8.5[P]
Sept	190.3[P]	12.5[P]	82.5[P]	434[P]	119.7[P]	..	38.9	..	130.9[P]	8.7[P]	0.91[P]	4.8[P]	0.66[P]	3.5[P]	1.49[P]	7.8[P]
Dec	180.1[P]	11.9[P]	78.2[P]	434[P]	50.5[P]	..	36.7	..	145.5[P]	9.7[P]	0.90[P]	5.0[P]	0.59[P]	3.3[P]	1.42[P]	7.8[P]
2006 March	178.9[P]	12.0[P]	77.5[P]	433[P]	..	..	..	..	159.7[P]	10.7[P]	0.90[P]	5.1[P]	0.61[P]	3.4[P]	1.38[P]	7.7[P]
June	185.7[P]	12.3[P]	80.1[P]	431[P]	..	..	..	..	141.1[P]	9.4[P]	0.93[P]	5.0[P]	0.65[P]	3.5[P]	1.44[P]	7.7[P]
Sept	190.3[P]	12.7[P]	85.1[P]	439[P]	..	..	..	..	130.1[P]	8.5[P]	0.91[P]	4.7[P]	0.65[P]	3.4[P]	1.46[P]	7.5[P]
England and Wales																
1976	584.3	11.8	53.8	92	358.6	57.7	126.7	10.1	598.5	12.1	8.34	14.3	5.66	9.7	10.45	17.7
1981	634.5	12.8	81.0	128	352.0	49.6	145.7	11.9	577.9	11.6	7.02	11.1	4.23	6.7	7.56	11.8
1986	661.0	13.2	141.3	214	347.9	43.6	153.9	12.9	581.2	11.6	6.31	9.6	3.49	5.3	6.37	9.6
1991	699.2	13.8	211.3	302	306.8	36.0	158.7	13.5	570.0	11.2	5.16	7.4	3.05	4.4	5.65	8.0
1996	649.5	12.6	232.7	358	279.0	30.9	157.1	13.8	560.1	10.9	3.99	6.1	2.68	4.1	5.62	8.6
1999	621.9	12.0	241.9	389	263.5	27.8	144.6	12.9	556.1	10.7	3.62	5.8	2.44	3.9	5.14	8.2
2000	604.4	11.6	238.6	395	268.0	27.8	141.1	12.7	535.7	10.3	3.38	5.6	2.34	3.9	4.96	8.2
2001	594.6	11.4	238.1	400	249.2	25.4	143.8	12.9	530.4	10.1	3.24	5.4	2.14	3.6	4.76	8.0
2002	596.1	11.3	242.0	406	255.6	25.6	147.7	13.4	533.5	10.1	3.13	5.2	2.13	3.6	4.99	8.3
2003	621.5	11.8	257.2	414	270.1	26.4	153.5	14.0	538.3	10.2	3.31	5.3	2.26	3.6	5.36	8.6
2004	639.7	12.1	269.7	422	273.1	26.1	153.4	14.1	512.5	9.7	3.22	5.0	2.21	3.5	5.39	8.4
2005	645.8	12.1	276.5	428	244.7[P]	22.8[P]	141.8[P]	13.0[P]	512.7	9.7	3.26	5.0	2.23[P]	3.4[P]	5.21[P]	8.0[P]
2004 March	155.2	11.8	65.2	421	35.0	13.5	39.5	14.6	140.5	10.7	0.87	5.6	0.58	3.8	1.34	8.6
June	157.4	11.9	65.2	414	75.0	28.8	38.1	14.0	122.1	9.3	0.74	4.7	0.52	3.3	1.31	8.3
Sept	165.4	12.4	70.2	424	113.2	43.0	39.0	14.2	118.6	8.9	0.80	4.8	0.57	3.5	1.43	8.6
Dec	161.7	12.1	69.1	427	49.9	19.0	36.9	13.5	131.3	9.8	0.81	5.0	0.53	3.3	1.30	8.0
2005 March	154.3	11.7	66.3	430	30.1[P]	11.4[P]	36.2	13.5[P]	145.7	11.0	0.85	5.5	0.57[P]	3.7[P]	1.25[P]	8.0[P]
June	159.8	12.0	66.6	417	67.8[P]	25.4[P]	36.5	13.4[P]	123.8	9.4	0.82	5.2	0.56[P]	3.5[P]	1.35[P]	8.4[P]
Sept	170.2	12.6	73.7	433	103.9[P]	38.5[P]	35.6	13.0[P]	114.7	8.6	0.79	4.6	0.57[P]	3.4[P]	1.34[P]	7.8[P]
Dec	161.7	12.0	69.9	433	42.9[P]	15.9[P]	33.4	12.2[P]	128.5	9.6	0.80	4.9	0.52[P]	3.2[P]	1.28[P]	7.9[P]
2006 March	159.5[P]	12.0[P]	68.7[P]	431[P]	..	..	34.3[P]	12.8[P]	140.8[P]	10.6[P]	0.82[P]	5.2[P]	0.55[P]	3.5[P]	1.25[P]	7.8[P]
June	165.9[P]	12.4[P]	71.3[P]	429[P]	..	..	33.0[P]	12.2[P]	123.6[P]	9.2[P]	0.84[P]	5.1[P]	0.58[P]	3.5[P]	1.31[P]	7.9[P]
Sept	173.5[P]	12.8[P]	76.1[P]	439[P]	..	..	..	..	114.0[P]	8.4[P]	0.83[P]	4.8[P]	0.59[P]	3.4[P]	1.31[P]	7.5[P]
England																
1976	550.4	11.8	50.8	92	339.0	..	..	..	560.3	12.0	7.83	14.2	5.32	9.7	9.81	17.6
1981	598.2	12.8	76.9	129	332.2	..	..	..	541.0	11.6	6.50	10.9	3.93	6.6	7.04	11.7
1986	623.6	13.2	133.5	214	328.4	..	146.0	..	544.5	11.6	5.92	9.5	3.27	5.2	5.98	9.5
1991	660.8	13.7	198.9	301	290.1	..	150.1	..	534.0	11.2	4.86	7.3	2.87	4.3	5.33	8.0
1996	614.2	12.7	218.2	355	264.2	..	148.7	..	524.0	10.8	3.74	6.1	2.53	4.1	5.36	8.7
1999	589.5	12.0	226.7	385	249.5	..	137.0	..	519.6	10.8	3.38	5.7	2.29	3.9	4.86	8.2
2000	572.8	11.7	223.8	391	253.8	..	133.9	..	501.0	10.2	3.18	5.6	2.21	3.9	4.69	8.2
2001	563.7	11.4	223.3	396	236.2	..	136.4	..	496.1	10.0	3.04	5.4	2.02	3.6	4.51	8.0
2002	565.7	11.4	227.0	401	242.1	..	140.2	..	499.1	10.1	2.97	5.2	2.02	3.6	4.75	8.3
2003	589.9	11.8	241.4	409	255.6	..	145.8	..	503.4	10.1	3.14	5.3	2.15	3.7	5.09	8.6
2004	607.2	12.1	253.1	417	258.2	..	145.5	..	479.2	9.6	3.03	5.0	2.09	3.4	5.10	8.4
2005	613.0	12.2	259.4	423	230.8[P]	..	134.6[P]	..	479.4	9.6	3.10	5.0	2.12[P]	3.5[P]	4.92[P]	8.0[P]
2004 March	147.3	11.8	61.2	416	33.3	..	37.4	..	131.4	10.6	0.82	5.5	0.55	3.7	1.26	8.5
June	149.6	12.0	61.3	410	71.0	..	36.0	..	114.2	9.2	0.69	4.6	0.49	3.3	1.25	8.3
Sept	156.9	12.5	65.8	420	106.8	..	36.9	..	110.8	8.8	0.74	4.7	0.53	3.4	1.35	8.6
Dec	153.3	12.2	64.7	422	47.2	..	35.1	..	122.9	9.8	0.78	5.1	0.52	3.4	1.24	8.1
2005 March	146.4	11.8	62.1	424	28.5[P]	..	34.4	..	136.2	10.9	0.81	5.6	0.54[P]	3.7[P]	1.18[P]	8.0[P]
June	151.8	12.1	62.5	412	63.9[P]	..	34.7	..	115.7	9.3	0.78	5.1	0.53[P]	3.5[P]	1.28[P]	8.4[P]
Sept	161.4	12.7	69.1	428	97.9[P]	..	33.8	..	107.3	8.5	0.75	4.7	0.55[P]	3.4[P]	1.27[P]	7.8[P]
Dec	153.4	12.1	65.6	428	40.4[P]	..	31.7	..	120.3	9.6	0.75	4.9	0.50[P]	3.3[P]	1.18[P]	7.7[P]
2006 March	151.3[P]	12.1[P]	64.5[P]	426[P]	..	..	32.5[P]	..	131.8[P]	10.5[P]	0.79[P]	5.2[P]	0.54[P]	3.6[P]	1.19[P]	7.8[P]
June	157.6[P]	12.5[P]	66.9[P]	425[P]	..	..	31.2[P]	..	115.7[P]	9.1[P]	0.79[P]	5.1[P]	0.55[P]	3.5[P]	1.25[P]	7.9[P]
Sept	164.7[P]	12.9[P]	71.4[P]	434[P]	..	..	..	..	106.6[P]	8.3[P]	0.79[P]	4.8[P]	0.56[P]	3.4[P]	1.24[P]	7.5[P]

Note: Death figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993 to 2005. Provisional death figures for 2006 relate to registrations.
Birth and death figures for England and also for Wales each exclude events for persons usually resident outside England and Wales. These events are, however, included in the totals for England and Wales combined, and for the United Kingdom.
From 1981 births to non-resident mothers in Northern Ireland are excluded from the figures for Northern Ireland, and for the United Kingdom.
Birth and death rates for 2006 are based on the 2004-based population projections for 2006.
Marriage and divorce rates in England and Wales for 1986 have been calculated using the interim revised marital status estimates (based on the original mid-2001 estimates) and are subject to further revision.
Marriage and divorce rates in Scotland for 2006 are based on 2005 marital status estimates.
Perinatal mortality figures for 2003 and 2004 have been revised in HSQ31 to include stillbirths data notified to ONS too late to be included in the original statistics.

Table 2.1 continued **Vital statistics summary**

Constituent countries of the United Kingdom

Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Divorces		Deaths		Infant mortality[5]		Neonatal mortality[6]		Perinatal mortality[7]	
	Number	Rate[1]	Number	Rate[2]	Number	Rate[3]	Number	Rate[4]	Number	Rate[1]	Number	Rate[2]	Number	Rate[2]	Number	Rate[8]
Wales																
1976	33.4	11.9	2.9	86	19.5	..	..	..	36.3	13.0	0.46	13.7	0.32	9.6	0.64	19.0
1981	35.8	12.7	4.0	112	19.8	..	..	..	35.0	12.4	0.45	12.6	0.29	8.1	0.51	14.1
1986	37.0	13.1	7.8	211	19.5	..	7.9	..	34.7	12.3	0.35	9.5	0.21	5.6	0.38	10.3
1991	38.1	13.3	12.3	323	16.6	..	8.6	..	34.1	11.9	0.25	6.6	0.16	4.1	0.30	7.9
1996	34.9	12.1	14.4	412	14.8	..	8.4	..	34.6	12.0	0.20	5.6	0.13	3.6	0.26	7.5
1999	32.1	11.1	14.8	461	14.0	..	7.5	..	35.0	12.1	0.20	6.1	0.13	4.0	0.25	7.7
2000	31.3	10.8	14.8	472	14.1	..	7.2	..	33.3	11.5	0.17	5.3	0.11	3.5	0.23	7.2
2001	30.6	10.5	14.8	483	13.0	..	7.4	..	33.0	11.3	0.16	5.4	0.11	3.5	0.23	7.5
2002	30.2	10.3	15.0	497	13.5	..	7.6	..	33.2	11.3	0.14	4.5	0.10	3.2	0.24	7.7
2003	31.4	10.7	15.8	503	14.5	..	7.7	..	33.7	11.5	0.13	4.3	0.10	3.1	0.24	7.6
2004	32.3	10.9	16.6	513	14.9	..	7.9	..	32.1	10.9	0.16	4.9	0.10	3.1	0.26	8.0
2005	32.6	11.0	17.1	524	13.9[p]	..	7.2[p]	..	32.1	10.9	0.13	4.1	0.09[p]	2.9[p]	0.24[p]	7.4[p]
2004 March	7.8	10.6	4.0	514	1.7	..	2.0	..	8.8	12.0	0.05	5.9	0.03	3.9	0.08	9.8
June	7.8	10.6	3.9	500	4.0	..	2.0	..	7.6	10.4	0.04	4.9	0.02	3.1	0.06	7.5
Sept	8.4	11.4	4.3	512	6.4	..	2.1	..	7.5	10.1	0.04	4.9	0.03	3.7	0.07	7.8
Dec	8.3	11.2	4.4	523	2.7	..	1.8	..	8.1	11.0	0.03	3.8	0.02	1.8	0.06	6.8
2005 March	7.8	10.7	4.1	529	1.6[p]	..	1.8	..	9.3	12.6	0.03	4.2	0.02[p]	3.1[p]	0.06[p]	7.7[p]
June	7.9	10.7	4.0	510	3.9[p]	..	1.8	..	7.8	10.6	0.03	4.2	0.03[p]	3.2[p]	0.06[p]	7.9[p]
Sept	8.7	11.6	4.6	530	6.0[p]	..	1.8	..	7.1	9.6	0.03	3.3	0.02[p]	2.8[p]	0.06[p]	7.0[p]
Dec	8.2	11.0	4.3	527	2.5[p]	..	1.8	..	7.9	10.7	0.04	4.6	0.02[p]	2.6[p]	0.06[p]	6.8[p]
2006 March	8.1[p]	11.1[p]	4.2[p]	520[p]	..	..	1.8[p]	..	8.7[p]	11.8[p]	0.03[p]	3.1[p]	0.02[p]	2.0[p]	0.06[p]	6.9[p]
June	8.3[p]	11.2[p]	4.3[p]	523[p]	..	..	1.7[p]	..	7.6[p]	10.3[p]	0.03[p]	4.1[p]	0.02[p]	2.4[p]	0.05[p]	6.3[p]
Sept	8.7[p]	11.5[p]	4.7[p]	543[p]	..	..	..	..	7.1[p]	9.5[p]	0.03[p]	3.8[p]	0.03[p]	3.0[p]	0.07[p]	7.5[p]
Scotland																
1976	64.9	12.5	6.0	93	37.5	53.8	8.1	6.5	65.3	12.5	0.96	14.8	0.67	10.3	1.20	18.3
1981	69.1	13.4	8.5	122	36.2	47.5	9.9	8.0	63.8	12.3	0.78	11.3	0.47	6.9	0.81	11.6
1986	65.8	12.9	13.6	206	35.8	42.9	12.8	10.7	63.5	12.4	0.58	8.8	0.34	5.2	0.67	10.2
1991	67.0	13.2	19.5	291	33.8	39.0	12.4	10.6	61.0	12.0	0.47	7.1	0.29	4.6	0.58	8.6
1996	59.3	11.6	21.4	360	30.2	33.2	12.3	10.9	60.7	11.9	0.37	6.2	0.23	3.9	0.55	9.2
1999	55.1	10.9	22.7	412	29.9	31.5	11.9	10.9	60.3	11.9	0.28	5.0	0.18	3.3	0.42	7.6
2000	53.1	10.5	22.6	426	30.4	31.6	11.1	10.3	57.8	11.4	0.31	5.7	0.21	4.0	0.45	8.4
2001	52.5	10.4	22.8	433	29.6	31.0	10.6	9.7	57.4	11.3	0.29	5.5	0.20	3.8	0.45	8.5
2002	51.3	10.1	22.5	440	29.8	30.8	10.8	10.0	58.1	11.5	0.27	5.3	0.16	3.2	0.39	7.6
2003	52.4	10.4	23.9	455	30.8	31.3	10.1	10.2	58.5	11.6	0.27	5.1	0.18	3.4	0.42	8.0
2004	54.0	10.6	25.2	467	32.2	32.2	11.2	10.5	56.2	11.1	0.27	4.9	0.17	3.1	0.44	8.1
2005	54.4	10.7	25.6	471	30.9	30.3	10.9	10.3	55.7	11.0	0.28	5.2	0.19	3.5	0.42	7.7
2004 March	13.5	10.7	6.4	472	3.9	15.6	2.9	10.9	15.3	12.2	0.06	4.6	0.04	2.7	0.13	9.2
June	13.3	10.5	6.1	459	8.7	35.1	2.8	10.5	13.6	10.7	0.07	5.1	0.05	3.6	0.11	8.4
Sept	13.8	10.8	6.4	462	12.7	50.6	2.7	10.2	13.1	10.2	0.07	5.3	0.05	3.4	0.11	7.8
Dec	13.3	10.4	6.3	475	6.8	27.3	2.8	10.4	14.2	11.1	0.06	4.7	0.03	2.6	0.09	6.9
2005 March	13.4	10.6	6.2	464	3.8	15.3	2.6	10.0	15.6	12.4	0.07	5.0	0.04	3.3	0.09	7.0
June	13.6	10.7	6.4	472	8.6	34.0	2.8	10.7	13.7	10.8	0.07	5.1	0.05	3.4	0.13	9.2
Sept	14.2	11.1	6.7	471	12.3	48.0	2.7	10.1	12.8	10.0	0.08	5.6	0.06	3.9	0.11	7.6
Dec	13.2	10.3	6.3	477	6.1	23.7	2.8	10.3	13.6	10.7	0.07	5.2	0.05	3.4	0.10	7.1
2006 March	13.6[p]	10.8[p]	6.6[p]	487[p]	3.5[p]	13.9[p]	2.6[p]	10.0[p]	14.9[p]	11.8[p]	0.05[p]	3.7[p]	0.03[p]	2.4[p]	0.09[p]	6.8[p]
June	14.0[p]	11.0[p]	6.7[p]	475[p]	8.3[p]	32.8[p]	3.1[p]	11.5[p]	13.9[p]	10.9[p]	0.07[p]	5.0[p]	0.05[p]	3.3[p]	0.09[p]	6.4[p]
Sept	14.2[p]	11.0[p]	6.7[p]	471[p]	12.2[p]	47.4[p]	3.5[p]	13.2[p]	12.7[p]	9.8[p]	0.05[p]	3.8[p]	0.04[p]	2.9[p]	0.11[p]	7.7[p]
Northern Ireland[9]																
1976	26.4	17.3	1.3	50	9.9	..	0.6	..	17.0	11.2	0.48	18.3	0.35	13.3	0.59	22.3
1981	27.2	17.6	1.9	70	9.6	45.4	1.4	4.2	16.3	10.6	0.36	13.2	0.23	8.3	0.42	15.3
1986	28.0	17.8	3.6	128	10.2	..	1.5	..	16.1	10.3	0.36	13.2	0.23	8.3	0.42	15.3
1991	26.0	16.2	5.3	203	9.2	..	2.3	..	15.1	9.4	0.19	7.4	0.12	4.6	0.22	8.4
1996	24.4	14.7	6.3	260	8.3	..	2.3	..	15.2	9.2	0.14	5.8	0.09	3.7	0.23	9.4
1999	23.0	13.7	7.0	303	7.6	..	2.3	..	15.7	9.3	0.15	6.4	0.11	4.8	0.23	10.0
2000	21.5	12.8	6.8	318	7.6	..	2.4	..	14.9	8.9	0.11	5.1	0.08	3.8	0.15	7.3
2001	22.0	13.0	7.1	325	7.3	..	2.4	..	14.5	8.6	0.13	6.1	0.10	4.5	0.19	8.5
2002	21.4	12.6	7.2	335	7.6	..	2.2	..	14.6	8.6	0.10	4.7	0.07	3.5	0.19	8.9
2003	21.6	12.7	7.4	344	7.8	..	2.3	..	14.5	8.5	0.11	5.3	0.09	4.0	0.18	8.1
2004	22.3	13.0	7.7	345	8.3	..	2.5	..	14.4	8.4	0.12	5.5	0.08	3.7	0.18	8.2
2005	22.3[p]	13.0[p]	8.1[p]	363[p]	8.1	..	2.4	..	14.2[p]	8.3[p]	0.14[p]	6.3[p]	0.11[p]	5.1[p]	0.18[p]	8.1[p]
2004 March	5.7	13.3	2.0	352	0.8	..	0.8	..	3.9	9.1	0.03	5.5	0.02	3.5	0.05	7.9
June	5.4	12.7	1.8	337	2.4	..	0.7	..	3.6	8.4	0.03	5.9	0.02	4.4	0.05	9.5
Sept	5.8	13.5	2.0	339	3.5	..	0.5	..	3.4	8.0	0.04	6.0	0.02	4.1	0.05	8.3
Dec	5.4	12.7	1.9	353	1.6	..	0.5	..	3.5	8.1	0.02	4.4	0.02	2.8	0.04	7.0
2005 March	5.5[p]	13.0[p]	2.0[p]	363[p]	0.9	..	0.6	..	3.8[p]	8.9[p]	0.03[p]	5.2[p]	0.02[p]	4.3[p]	0.05[p]	8.8[p]
June	5.7[p]	13.3[p]	2.0[p]	359[p]	2.2	..	0.7	..	3.7[p]	8.6[p]	0.04[p]	7.2[p]	0.03[p]	5.6[p]	0.04[p]	8.4[p]
Sept	5.9[p]	13.7[p]	2.0[p]	358[p]	3.5	..	0.5	..	3.4[p]	7.8[p]	0.04[p]	6.6[p]	0.03[p]	5.6[p]	0.04[p]	7.2[p]
Dec	5.2[p]	11.9[p]	1.9[p]	373[p]	1.4	..	0.5	..	3.4[p]	7.9[p]	0.03[p]	6.0[p]	0.02[p]	4.6[p]	0.04[p]	7.9[p]
2006 March	5.8[p]	13.6[p]	2.2[p]	370[p]	..	..	..	..	4.0[p]	9.4[p]	0.03[p]	5.3[p]	0.02[p]	3.3[p]	0.04[p]	6.8[p]
June	5.8[p]	13.3[p]	2.2[p]	381[p]	..	..	..	..	3.6[p]	8.4[p]	0.03[p]	4.7[p]	0.02[p]	3.6[p]	0.04[p]	6.9[p]
Sept	6.1[p]	13.9[p]	2.3[p]	358[p]	..	..	..	..	3.4[p]	7.8[p]	0.03[p]	4.9[p]	0.02[p]	3.6[p]	0.05[p]	7.4[p]

See notes on first page of table.
1 Per 1,000 population of all ages.
2 Per 1,000 live births.
3 Persons marrying per 1,000 unmarried population aged 16 and over.
4 Persons divorcing per 1,000 married population.
5 Deaths under 1 year.
6 Deaths under 4 weeks.
7 Stillbirths and deaths under 1 week.
8 Per 1,000 live births and stillbirths.

9 A typographical error has been identified in the quarterly divorce figures for Northern Ireland. This error first occurred in Population Trends 113 Autumn 2003. The correct quarterly figures for 2002 and 2003 are as follows:

Year	March	June	Sept	Dec
2002	0.6	0.6	0.5	0.5
2003	0.7	0.5	0.6	0.6

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Table 2.2 Key demographic and health indicators

Constituent countries of the United Kingdom

Numbers (thousands), rates, percentages, mean age

				Dependency ratio		Live births					Period expectation of life (in years) at birth		
	Population	Live births	Deaths	Children[1]	Elderly[2]	TFR[3]	Standardised mean age of mother at birth (years)[4]	Unstandardised mean age of mother at birth (years)[5]	Outside marriage as percentage of total live births	Age-standardised mortality rate[6]	Males	Females	Infant mortality rate[7]
United Kingdom													
1976	56,216.1	675.5	680.8	42.1	29.5	1.74	..	26.4	*9.0*	10,486	..	..	14.5
1981	56,357.5	730.7	658.0	37.1	29.7	1.82	27.0	26.8	*12.5*	9,506	70.8	76.8	11.2
1986	56,683.8	754.8	660.7	33.5	29.7	1.78	27.4	27.0	*20.4*	8,914	71.9	77.7	9.5
1991	57,438.7	792.3	646.2	33.2	30.0	1.82	27.7	27.7	*29.8*	8,168	73.2	78.7	7.4
1996	58,164.4	733.2	636.0	33.9	30.0	1.73	28.2	28.6	*35.5*	7,584	74.3	79.4	6.1
1999	58,684.4	700.0	632.1	33.4	29.9	1.68	28.4	28.9	*38.8*	7,318	75.0	79.9	5.8
2000	58,886.1	679.0	608.4	33.1	29.9	1.64	28.5	29.1	*39.5*	6,974	75.4	80.2	5.6
2001	59,113.5	669.1	602.3	32.6	29.8	1.63	28.6	29.2	*40.1*	6,807	75.7	80.4	5.5
2002	59,321.7	668.8	606.2	32.2	29.8	1.64	28.7	29.3	*40.6*	6,765	75.9	80.5	5.2
2003	59,553.8	695.6	612.0	31.8	29.9	1.71	28.8	29.4	*41.5*	6,757	76.3	80.7	5.3
2004	59,834.3	716.0	583.1	31.4	30.0	1.77	28.9	29.4	*42.3*	6,390	76.6	81.0	5.0
2005	60,209.5	722.6[p]	582.7[p]	31.0	30.1	1.79[p]	29.1	29.5	*42.9*	6,259[p]	..	..	5.1[p]
England													
1976	46,659.9	550.4	560.3	41.4	29.7	1.70	..	26.4	*9.2*	10,271	..	..	14.2
1981	46,820.8	598.2	541.0	36.4	29.9	1.79	..	26.8	*12.9*	9,298	71.1	77.0	10.9
1986	47,187.6	623.6	544.5	33.1	29.8	1.76	27.4	27.0	*21.4*	8,725	72.2	77.9	9.5
1991	47,875.0	660.8	534.0	32.9	30.0	1.81	27.7	27.7	*30.1*	8,017	73.4	78.9	7.3
1996	48,519.1	614.2	524.0	33.7	30.0	1.73	28.2	28.7	*35.5*	7,414	74.5	79.6	6.1
1999	49,032.9	589.5	519.6	33.3	29.9	1.69	28.4	29.0	*38.5*	7,138	75.3	80.1	5.7
2000	49,233.3	572.8	501.0	33.0	29.8	1.65	28.5	29.2	*39.1*	6,821	75.7	80.4	5.6
2001	49,449.7	563.7	496.1	32.5	29.7	1.63	28.6	29.3	*39.6*	6,650	76.0	80.6	5.4
2002	49,646.9	565.7	499.1	32.1	29.7	1.65	28.7	29.4	*40.1*	6,603	76.2	80.7	5.2
2003	49,855.7	589.9	503.4	31.8	29.8	1.73	28.9	29.4	*40.9*	6,602	76.6	80.9	5.3
2004	50,093.1	607.2	479.2	31.4	29.9	1.78	29.0	29.5	*41.7*	6,232	76.9	81.2	5.0
2005	50,431.7	613.0	479.4	31.0	29.9	1.80	29.1	29.5	*42.3*	6,110	..	..	5.0
Wales													
1976	2,799.3	33.4	36.3	42.0	30.9	1.78	..	26.0	*8.6*	10,858	..	..	13.7
1981	2,813.5	35.8	35.0	37.6	31.6	1.87	..	26.6	*11.2*	9,846	70.4	76.4	12.6
1986	2,810.9	37.0	34.7	34.3	32.5	1.86	26.9	26.5	*21.1*	9,043	71.6	77.5	9.5
1991	2,873.0	38.1	34.1	34.4	33.5	1.88	27.1	27.0	*32.3*	8,149	73.1	78.8	6.6
1996	2,891.3	34.9	34.6	34.9	33.7	1.81	27.5	27.8	*41.2*	7,758	73.9	79.1	5.6
1999	2,900.6	32.1	35.0	34.4	33.6	1.72	27.6	28.1	*46.1*	7,637	74.7	79.6	6.1
2000	2,906.9	31.3	33.3	34.1	33.5	1.68	27.7	28.2	*47.2*	7,180	74.9	79.8	5.3
2001	2,910.2	30.6	33.0	33.7	33.6	1.66	27.8	28.3	*48.3*	7,017	75.4	80.1	5.4
2002	2,923.4	30.2	33.2	33.2	33.6	1.63	28.0	28.4	*49.7*	6,951	75.7	80.2	4.5
2003	2,938.0	31.4	33.7	32.7	33.7	1.71	28.1	28.5	*50.3*	6,980	76.0	80.4	4.3
2004	2,952.5	32.3	32.1	32.2	33.9	1.77	28.2	28.5	*51.3*	6,582	76.3	80.7	4.9
2005	2,958.6	32.6	32.1	31.8	34.1	1.79	28.4	28.5	*52.4*	6,434	..	..	4.1
Scotland													
1976	5,233.4	64.9	65.3	44.7	28.4	1.79	..	26.0	*9.3*	11,675	..	..	14.8
1981	5,180.2	69.1	63.8	38.2	28.4	1.84	..	26.3	*12.2*	10,849	69.1	75.3	11.3
1986	5,111.8	65.8	63.5	33.6	28.1	1.67	27.1	26.6	*20.6*	10,120	70.2	76.2	8.8
1991	5,083.3	67.0	61.0	32.4	28.9	1.69	27.5	27.4	*29.1*	9,216	71.4	77.1	7.1
1996	5,092.2	59.3	60.7	32.3	29.2	1.56	28.0	28.5	*36.0*	8,791	72.2	77.9	6.2
1999	5,072.0	55.1	60.3	31.7	29.7	1.51	28.3	28.9	*41.2*	8,493	72.8	78.4	5.0
2000	5,062.9	53.1	57.8	31.4	29.8	1.48	28.4	29.0	*42.6*	8,082	73.1	78.6	5.7
2001	5,064.2	52.5	57.4	30.8	30.0	1.49	28.5	29.2	*43.3*	7,930	73.3	78.8	5.5
2002	5,054.8	51.3	58.1	30.3	30.2	1.48	28.6	29.2	*44.0*	7,955	73.5	78.9	5.3
2003	5,057.4	52.4	58.5	29.9	30.3	1.54	28.7	29.3	*45.5*	7,922	73.8	79.1	5.1
2004	5,078.4	54.0	56.2	29.5	30.5	1.60	28.9	29.4	*46.7*	7,536	74.2	79.3	4.9
2005	5,094.8	54.4	55.7	29.1	30.6	1.62	29.0	29.5	*47.1*	7,349	..	..	5.2
Northern Ireland													
1976	1,523.5	26.4	17.0	56.1	25.3	2.68	..	27.4	*5.0*	11,746	..	..	18.3
1981	1,543.0	27.2	16.3	50.6	25.3	2.59	28.1	27.5	*7.0*	10,567	69.2	75.5	13.2
1986	1,573.5	28.0	16.1	46.1	25.5	2.45	28.1	27.5	*12.8*	10,071	70.9	77.1	13.2
1991	1,607.3	26.0	15.1	44.1	26.1	2.16	28.3	28.0	*20.3*	8,303	72.6	78.4	7.4
1996	1,661.8	24.4	15.2	41.8	25.5	1.95	28.7	28.8	*26.0*	7,742	73.8	79.2	5.8
1999	1,679.0	23.0	15.7	40.2	25.5	1.86	28.8	29.0	*30.3*	7,699	74.5	79.6	6.4
2000	1,682.9	21.5	14.9	39.5	25.4	1.75	29.0	29.2	*31.8*	7,279	74.8	79.8	5.1
2001	1,689.3	22.0	14.5	38.6	25.5	1.80	29.1	29.4	*32.5*	6,976	75.2	80.1	6.1
2002	1,696.6	21.4	14.6	37.9	25.7	1.77	29.2	29.5	*33.5*	6,930	75.6	80.4	4.7
2003	1,702.6	21.6	14.5	37.2	25.9	1.81	29.2	29.5	*34.4*	6,744	75.8	80.6	5.3
2004	1,710.3	22.3	14.4	36.4	26.2	1.87	29.4	29.7	*34.5*	6,609	76.0	80.8	5.5
2005	1,724.4	22.3[p]	14.2[p]	35.8	26.3	1.87[p]	29.5	29.7	*36.3*	6,418[p]	..	..	6.3[p]

Note: Death figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993 to 2005. Birth and death figures for England and also for Wales each exclude events for persons usually resident outside England and Wales. These events are, however, included in the totals for England and Wales combined, and for the United Kingdom. From 1981 births to non-resident mothers in Northern Ireland are excluded from the figures for Northern Ireland, and for the United Kingdom.

1 Percentage of children under 16 to working population (males 16–64 and females 16–59).

2 Percentage of males 65 and over and females 60 and over to working population (males 16–64 and females 16–59).

3 TFR (total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFR (total period fertility rate).

4 Standardised to take account of the age structure of the population.

5 Unstandardised and therefore takes no account of the age structure of the population.

6 Per million population. The age-standardised mortality rate makes allowances for changes in the age structure of the population. See Notes to tables.

7 Deaths at age under one year per 1,000 live births.

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Table 3.1 Live births: age of mother

England and Wales

Numbers (thousands), rates, mean age and TFRs

Year and quarter	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Mean[1] age (years)	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Mean[2] age (years)	TFR[3]
	Total live births (numbers)								Age-specific fertility rates[4]								
1961	811.3	59.8	249.8	248.5	152.3	77.5	23.3	27.6	89.2	37.3	172.6	176.9	103.1	48.1	15.0	27.4	2.77
1964(max)	876.0	76.7	276.1	270.7	153.5	75.4	23.6	27.2	92.9	42.5	181.6	187.3	107.7	49.8	13.7	27.3	2.93
1966	849.8	86.7	285.8	253.7	136.4	67.0	20.1	26.8	90.5	47.7	176.0	174.0	97.3	45.3	12.5	27.1	2.75
1971	783.2	82.6	285.7	247.2	109.6	45.2	12.7	26.2	83.5	50.6	152.9	153.2	77.1	32.8	8.7	26.6	2.37
1976	584.3	57.9	182.2	220.7	90.8	26.1	6.5	26.4	60.4	32.2	109.3	118.7	57.2	18.6	4.8	26.5	1.71
1977(min)	569.3	54.5	174.5	207.9	100.8	25.5	6.0	26.5	58.1	29.4	103.7	117.5	58.6	18.2	4.4	26.6	1.66
1981	634.5	56.6	194.5	215.8	126.6	34.2	6.9	26.8	61.3	28.1	105.3	129.1	68.6	21.7	4.9	27.0	1.79
1986	661.0	57.4	192.1	229.0	129.5	45.5	7.6	27.0	60.6	30.1	92.7	123.8	78.0	24.6	4.8	27.4	1.77
1991	699.2	52.4	173.4	248.7	161.3	53.6	9.8	27.7	63.6	33.0	89.3	119.4	86.7	32.1	5.3	27.7	1.82
1992	689.7	47.9	163.3	244.8	166.8	56.7	10.2	27.9	63.6	31.7	86.1	117.6	87.4	33.4	5.8	27.8	1.80
1993	673.5	45.1	152.0	236.0	171.1	58.8	10.5	28.1	62.7	30.9	82.5	114.4	87.4	34.1	6.2	27.9	1.76
1994	664.7	42.0	140.2	229.1	179.6	63.1	10.7	28.4	62.0	28.9	79.0	112.2	89.4	35.8	6.4	28.1	1.75
1995	648.1	41.9	130.7	217.4	181.2	65.5	11.3	28.5	60.5	28.5	76.4	108.4	88.3	36.3	6.8	28.2	1.72
1996	649.5	44.7	125.7	211.1	186.4	69.5	12.1	28.6	60.6	29.7	77.0	106.6	89.8	37.5	7.2	28.2	1.74
1997	643.1	46.4	118.6	202.8	187.5	74.9	12.9	28.8	60.0	30.2	76.0	104.3	89.8	39.4	7.6	28.3	1.73
1998	635.9	48.3	113.5	193.1	188.5	78.9	13.6	28.9	59.2	30.9	74.9	101.5	90.6	40.4	7.9	28.3	1.72
1999	621.9	48.4	110.7	181.9	185.3	81.3	14.3	29.0	57.8	30.9	73.0	98.3	89.6	40.6	8.1	28.4	1.70
2000	604.4	45.8	107.7	170.7	180.1	85.0	15.1	29.1	55.9	29.3	70.0	94.3	87.9	41.4	8.3	28.5	1.65
2001	594.6	44.2	108.8	159.9	178.9	86.5	16.3	29.2	54.7	28.0	69.0	91.7	88.0	41.5	8.8	28.6	1.63
2002	596.1	43.5	110.9	153.4	180.5	90.5	17.3	29.3	54.7	27.0	69.2	91.6	89.8	43.0	9.1	28.7	1.65
2003	621.5	44.2	116.6	156.9	187.2	97.4	19.1	29.4	56.8	26.8	71.2	96.4	94.8	46.4	9.8	28.8	1.73
2004	639.7	45.1	121.1	160.0	190.6	102.2	20.8	29.4	58.2	26.9	72.7	98.4	99.4	48.9	10.4	28.9	1.78
2005	645.8	44.8	122.1	164.3	188.2	104.1	22.2	29.5	58.4	26.3	71.7	98.8	100.9	50.3	10.8	29.0	1.80
2002 March	143.3	10.5	26.5	37.4	43.2	21.6	4.1	29.3	53.3	26	67	91	87	42	9	28.7	1.61
June	147.2	10.4	26.7	37.9	45.5	22.4	4.3	29.4	54.1	26	67	91	91	43	9	28.8	1.63
Sept	155.0	11.4	28.9	39.9	46.9	23.4	4.5	29.3	56.4	28	72	95	93	44	9	28.7	1.70
Dec	150.6	11.2	28.8	38.2	45.0	23.0	4.5	29.3	54.8	28	71	91	89	44	9	28.7	1.65
2003 March	147.4	10.9	27.9	37.5	44.0	22.6	4.6	29.3	54.6	27	69	93	90	44	10	28.8	1.66
June	155.1	10.7	28.5	39.3	47.4	24.5	4.7	29.5	56.9	26	70	97	96	47	10	28.9	1.73
Sept	162.8	11.5	30.5	41.0	49.3	25.6	5.0	29.4	59.0	28	74	100	99	48	10	28.9	1.79
Dec	156.0	11.2	29.7	39.1	46.5	24.6	4.8	29.4	56.6	27	72	95	94	47	10	28.8	1.72
2004 March	155.2	11.0	29.3	38.7	46.6	24.7	4.9	29.4	56.8	27	71	96	98	47	10	28.9	1.74
June	157.4	10.7	29.3	39.4	47.7	25.2	5.0	29.5	57.6	26	71	97	100	49	10	29.0	1.77
Sept	165.4	11.7	31.4	41.6	49.0	26.3	5.4	29.4	59.9	28	75	102	102	50	11	28.9	1.84
Dec	161.7	11.6	31.1	40.3	47.2	26.0	5.5	29.4	58.6	28	74	99	98	49	11	28.9	1.80
2005 March	154.3	10.9	29.3	38.9	45.0	24.7	5.4	29.5	56.6	26	70	95	98	48	11	29.0	1.74
June	159.8	10.7	29.6	40.3	47.5	26.2	5.4	29.5	57.9	25	70	97	102	51	11	29.1	1.78
Sept	170.2	11.9	32.5	43.7	49.4	26.9	5.7	29.4	61.1	28	76	104	105	52	11	29.0	1.88
Dec	161.7	11.3	30.7	41.4	46.3	26.3	5.7	29.4	58.0	27	72	99	99	50	11	29.0	1.79
2006 March[5p]	159.5	11.1	30.6	40.6	45.2	26.3	5.7	29.5	58.4	26	72	96	102	52	11	29.1	1.80
June[p]	165.9	11.3	31.2	42.9	47.5	27.1	5.9	29.5	60.1	27	73	101	106	53	11	29.1	1.86
Sept[p]	173.5	11.9	33.2	45.1	48.6	28.8	5.9	29.4	62.1	28	76	105	107	56	11	29.1	1.92

Note: The rates for women of all ages, under 20, and 40 and over are based upon the populations of women aged 15–44, 15–19, and 40–44 respectively.

1 Unstandardised and therefore takes no account of the age structure of the population.

2 Standardised to take account of the age structure of the population. This measure is more appropriate for use when analysing trends or making comparisons between different geographies.

3 TFR (total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFR (total period fertility rate).

4 Births per 1,000 women in the age-group; all quarterly age-specific fertility rates are adjusted for days in the quarter. They are not adjusted for seasonality.

5 Birth rates for 2006 are based on the 2004-based population projections for 2006.

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Table 3.2 Live births outside marriage: age of mother and type of registration

England and Wales

Numbers (thousands), mean age and percentages

Year and quarter	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Mean[1] age (years)	Age of mother at birth: All ages	Under 20	20–24	25–29	30–34	35–39	40 and over	Registration[2]: Joint: Same[3] address	Joint: Different[3] addresses	Sole
	Live births outside marriage (numbers)								Percentage of total live births in age group							As a percentage of all births outside marriage		
1971	65.7	21.6	22.0	11.5	6.2	3.2	1.1	23.7	8.4	26.1	7.7	4.7	5.7	7.0	9.0	45.5		54.5
1976	53.8	19.8	16.6	9.7	4.7	2.3	0.7	23.3	9.2	34.2	9.1	4.4	5.2	8.6	10.1	51.0		49.0
1981	81.0	26.4	28.8	14.3	7.9	1.3	0.9	23.4	12.8	46.7	14.8	6.6	6.2	3.9	12.5	58.2		41.8
1986	141.3	39.6	54.1	27.7	13.1	5.7	1.1	23.8	21.4	69.0	28.2	12.1	10.1	12.6	14.7	46.6	19.6	33.8
1991	211.3	43.4	77.8	52.4	25.7	9.8	2.1	24.8	30.2	82.9	44.9	21.1	16.0	18.3	21.3	54.6	19.8	25.6
1992	215.2	40.1	77.1	55.9	28.9	10.9	2.3	25.2	31.2	83.7	47.2	22.8	17.3	19.3	22.9	55.4	20.7	23.9
1993	216.5	38.2	75.0	57.5	31.4	11.9	2.5	25.5	32.2	84.8	49.4	24.4	18.4	20.2	23.5	54.8	22.0	23.2
1994	215.5	35.9	71.0	58.5	34.0	13.4	2.7	25.8	32.4	85.5	50.6	25.5	18.9	21.2	25.2	57.5	19.8	22.7
1995	219.9	36.3	69.7	59.6	37.0	14.4	3.0	26.0	33.9	86.6	53.3	27.4	20.4	22.0	26.2	58.1	20.1	21.8
1996	232.7	39.3	71.1	62.3	40.5	16.2	3.2	26.1	35.8	88.0	56.5	29.5	21.7	23.4	26.7	58.1	19.9	21.9
1997	238.2	41.1	69.5	63.4	42.2	18.2	3.7	26.2	37.0	88.7	58.6	31.3	22.5	24.3	28.6	59.5	19.3	21.2
1998	240.6	43.0	67.8	62.4	43.9	19.6	3.9	26.3	37.8	89.1	59.7	32.3	23.3	24.8	29.0	60.9	18.3	20.8
1999	241.9	43.0	67.5	61.2	45.0	20.8	4.3	26.4	38.9	89.0	61.0	33.6	24.3	25.6	30.2	61.8	18.2	19.9
2000	238.6	41.1	67.5	59.1	43.9	22.3	4.7	26.5	39.5	89.7	62.6	34.6	24.4	26.2	31.0	62.7	18.2	19.2
2001	238.1	39.5	68.1	56.8	45.2	23.3	5.1	26.7	40.0	89.5	62.6	35.5	25.3	26.9	31.6	63.2	18.4	18.4
2002	242.0	38.9	70.2	55.8	46.4	25.1	5.6	26.8	40.6	89.5	63.3	36.4	25.7	27.7	32.2	63.7	18.5	17.8
2003	257.2	39.9	75.7	58.2	49.2	27.8	6.4	26.9	41.4	90.2	64.9	37.1	26.3	28.5	33.3	63.5	19.0	17.4
2004	269.7	41.0	79.8	61.4	50.7	29.7	7.1	27.0	42.2	91.0	65.9	38.4	26.6	29.0	34.0	63.6	19.6	16.8
2005	276.5	41.2	82.1	64.4	50.8	30.3	7.7	27.0	42.8	91.8	67.2	39.2	27.0	29.1	34.8	63.5	20.2	16.3
2002 March	58.0	9.4	16.7	13.6	10.9	6.0	1.3	26.8	40.5	89.4	63.0	36.4	25.4	27.7	31.5	63.2	18.5	18.3
June	58.3	9.3	16.6	13.5	11.4	6.1	1.4	26.8	39.6	89.4	62.2	35.6	25.0	27.2	31.7	64.2	18.2	17.7
Sept	63.4	10.2	18.4	14.6	12.3	6.5	1.5	26.8	40.9	89.3	63.8	36.6	26.1	27.9	32.7	63.9	18.5	17.5
Dec	62.3	10.0	18.4	14.1	11.9	6.5	1.5	26.8	41.4	89.7	64.1	36.9	26.4	28.0	32.8	63.3	18.9	17.8
2003 March	61.0	9.8	18.0	13.9	11.6	6.3	1.5	26.8	41.4	90.1	64.5	37.0	26.9	29.1	33.3	63.0	18.9	18.1
June	62.8	9.6	18.3	14.2	12.2	6.9	1.6	27.0	40.5	90.0	64.0	36.2	25.7	28.3	33.7	64.0	18.5	17.4
Sept	67.6	10.3	20.0	15.3	13.0	7.3	1.7	26.9	41.5	90.2	65.6	38.3	26.4	28.6	33.3	63.7	19.3	18.0
Dec	65.8	10.2	19.5	14.9	12.5	7.3	1.6	26.9	42.2	90.4	65.6	38.0	27.7	29.5	32.9	63.3	19.4	17.4
2004 March	65.2	10.1	19.3	14.8	12.5	7.0	1.7	26.9	42.0	91.2	65.8	38.2	26.8	28.2	34.3	63.1	19.4	17.4
June	65.2	9.8	19.1	14.9	12.5	7.3	1.7	27.0	41.4	91.0	65.1	37.7	26.2	28.8	34.5	63.9	19.5	16.6
Sept	70.2	10.7	20.7	16.1	13.0	7.9	1.8	27.0	42.4	91.2	66.1	38.6	26.5	30.0	33.5	63.7	19.7	16.6
Dec	69.1	10.6	20.7	15.7	12.7	7.5	1.9	26.9	42.7	90.6	66.6	39.0	27.0	29.0	33.9	63.6	19.8	16.6
2005 March	66.3	10.1	19.6	15.2	12.2	7.3	1.9	27.0	43.0	92.0	67.0	39.0	27.1	29.6	35.2	63.1	20.3	16.6
June	66.6	9.8	19.7	15.4	12.5	7.4	1.8	27.0	41.7	91.2	66.5	38.2	26.4	28.1	33.5	63.7	19.8	16.5
Sept	73.7	10.9	22.1	17.3	13.4	7.9	2.1	26.9	43.3	92.0	68.0	39.6	27.2	29.3	35.7	63.7	20.3	16.0
Dec	69.9	10.4	20.7	16.5	12.6	7.7	2.0	27.0	43.2	92.1	67.4	39.8	27.3	29.5	34.8	63.5	20.3	16.2
2006 March[p]	68.7	10.4	20.8	16.0	12.0	7.6	2.0	26.9	43.1	93.2	67.9	39.4	26.5	28.9	34.9	63.1	20.9	16.0
June[p]	71.3	10.5	21.2	16.9	12.8	7.8	2.1	27.0	42.9	92.6	68.1	39.3	26.8	28.9	35.1	63.8	20.6	15.6
Sept[p]	76.1	11.0	22.9	18.4	13.3	8.4	2.2	26.9	43.9	92.9	69.2	40.7	27.3	29.1	36.5	64.2	20.5	15.3

1 Unstandardised and therefore takes no account of the age structure of the population.
2 Births outside marriage can be registered by both the mother and father (joint) or by the mother alone (sole).
3 Usual address(es) of parents.
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Table 4.1 Conceptions: age of woman at conception

England and Wales (residents)

Numbers (thousands) and rates; and percentage terminated by abortion

Year and quarter	Age of woman at conception								
	All ages	Under 16	Under 18	Under 20	20–24	25–29	30–34	35–39	40 and over
	(a) numbers (thousands)								
1991	853.7	7.5	40.1	101.6	233.3	281.5	167.5	57.6	12.1
1996	816.9	8.9	43.5	94.9	179.8	252.6	200.0	75.5	14.1
1999	774.0	7.9	42.0	98.8	157.6	218.5	197.1	86.0	16.0
2000	767.0	8.1	41.3	97.7	159.0	209.3	195.3	88.7	17.0
2001	763.7	7.9	41.0	96.0	161.6	199.3	196.7	92.2	17.8
2002	787.0	7.9	42.0	97.1	167.8	199.4	204.3	98.9	19.6
2003	806.8	8.0	42.2	98.6	175.3	199.8	209.0	103.1	20.9
2004	826.8	7.6	42.2	101.3	181.3	205.1	209.6	106.8	22.8
2005[P]	837.4	7.9	42.2	101.9	184.6	210.1	208.1	109.3	23.4
2002 March	191.6	1.9	10.3	24.1	41.3	48.8	49.0	23.7	4.6
June	190.4	2.0	10.5	24.2	40.7	48.2	48.8	23.8	4.8
Sept	197.4	2.0	10.2	23.4	41.4	50.2	52.4	25.2	4.9
Dec	207.6	2.0	11.0	25.4	44.4	52.3	54.2	26.2	5.2
2003 March	198.2	1.9	10.5	24.5	42.9	49.4	51.2	25.2	4.9
June	198.5	2.1	10.8	24.7	43.2	49.1	51.1	25.2	5.2
Sept	200.1	2.0	10.2	23.7	43.1	49.3	52.8	26.1	5.2
Dec	210.0	2.0	10.7	25.7	46.1	52.0	54.0	26.7	5.6
2004 March	207.9	2.0	10.9	26.2	45.9	51.1	52.6	26.6	5.6
June	200.1	1.9	10.6	25.0	43.7	49.3	50.4	25.9	5.7
Sept	203.6	1.8	10.0	24.0	44.1	50.7	52.7	26.6	5.6
Dec	215.2	1.9	10.8	26.1	47.7	54.0	54.0	27.6	5.8
2005 March[P]	204.6	1.9	10.4	25.1	45.4	50.8	51.0	26.6	5.7
June[P]	204.6	2.0	10.5	25.1	45.2	51.0	50.7	26.9	5.8
Sept[P]	210.7	2.0	10.4	25.3	45.6	53.3	53.1	27.5	6.0
Dec[P]	217.6	2.0	10.9	26.4	48.4	55.1	53.3	28.4	5.8
	(b) rates (conceptions per thousand women in age group)								
1991	77.7	8.9	44.6	64.1	120.2	135.1	90.1	34.4	6.6
1996	76.2	9.5	46.3	63.2	110.1	127.6	96.3	40.7	8.4
1999	71.9	8.3	45.1	63.1	103.9	118.0	95.3	42.9	9.1
2000	70.9	8.3	43.9	62.5	103.2	115.7	95.3	43.2	9.4
2001	70.3	8.0	42.7	60.8	102.5	114.2	96.7	44.3	9.6
2002	72.2	7.9	42.8	60.3	104.6	119.1	101.6	47.0	10.3
2003	73.7	8.0	42.3	59.8	107.1	122.8	105.9	49.1	10.7
2004	75.3	7.5	41.7	60.3	108.9	126.2	109.4	51.0	11.4
2005[P]	75.7	7.8	41.3	59.8	108.4	126.3	111.6	52.8	11.4
2002 March	71.3	7.7	42.9	61.3	105.1	116.4	98.4	45.8	9.9
June	70.1	8.1	42.9	60.4	101.9	114.8	97.1	45.5	10.2
Sept	71.8	7.7	41.2	57.5	102.1	119.4	103.5	47.6	10.2
Dec	75.4	8.0	44.1	62.1	108.9	125.1	107.6	49.4	10.7
2003 March	73.5	7.8	42.8	60.8	107.2	121.8	104.5	48.6	10.3
June	72.8	8.3	43.3	60.3	106.1	120.6	103.5	48.0	10.8
Sept	72.5	7.9	40.5	56.8	104.2	120.2	106.4	49.3	10.5
Dec	76.0	7.8	42.5	61.4	110.9	126.8	109.7	50.5	11.2
2004 March	76.2	7.8	43.4	63.1	111.5	126.3	109.1	51.1	11.4
June	73.3	7.7	42.1	60.1	105.8	122.1	105.3	49.8	11.5
Sept	73.7	7.1	39.2	56.8	105.0	123.6	109.8	50.6	11.1
Dec	77.8	7.4	42.4	61.6	113.0	131.1	113.2	52.8	11.4
2005 March[P]	75.2	7.6	41.4	60.0	109.0	124.9	109.9	51.8	11.4
June[P]	74.3	7.9	41.1	59.1	106.8	123.2	108.7	52.0	11.4
Sept[P]	75.6	7.8	40.5	58.9	106.0	126.6	113.4	52.7	11.6
Dec[P]	78.0	7.8	42.3	61.5	112.4	130.1	115.0	54.6	11.2
	(c) percentage terminated by abortion								
1991	*19.4*	*51.1*	*39.9*	*34.5*	*22.2*	*13.4*	*13.7*	*22.0*	*41.6*
1996	*20.8*	*49.2*	*40.0*	*36.2*	*25.7*	*15.6*	*14.1*	*21.2*	*37.6*
1999	*22.6*	*52.6*	*43.0*	*38.6*	*28.5*	*17.5*	*14.7*	*21.2*	*37.0*
2000	*22.7*	*54.0*	*44.2*	*39.3*	*29.2*	*17.7*	*14.5*	*20.5*	*35.4*
2001	*23.2*	*55.8*	*45.7*	*40.4*	*29.7*	*18.4*	*14.6*	*20.4*	*34.6*
2002	*22.5*	*55.6*	*45.3*	*39.9*	*28.8*	*17.9*	*13.9*	*19.5*	*34.6*
2003	*22.5*	*57.4*	*45.7*	*40.2*	*29.0*	*17.9*	*13.6*	*18.9*	*34.7*
2004	*22.4*	*57.2*	*45.6*	*40.1*	*28.9*	*18.2*	*13.2*	*18.3*	*33.0*
2005[P]	*22.3*	*57.1*	*46.4*	*40.4*	*28.7*	*18.0*	*13.2*	*17.8*	*33.0*
2002 March	*22.9*	*54.3*	*44.9*	*40.2*	*29.4*	*18.1*	*14.1*	*19.8*	*35.1*
June	*22.9*	*55.5*	*45.0*	*39.4*	*28.9*	*18.4*	*14.5*	*20.1*	*34.8*
Sept	*21.6*	*56.1*	*45.0*	*39.4*	*27.8*	*17.3*	*13.2*	*18.7*	*34.2*
Dec	*22.6*	*56.4*	*46.3*	*40.7*	*29.0*	*17.8*	*13.9*	*19.4*	*34.5*
2003 March	*22.8*	*58.9*	*46.1*	*40.2*	*29.5*	*17.9*	*13.8*	*19.7*	*34.5*
June	*23.1*	*58.3*	*46.2*	*40.9*	*29.3*	*18.4*	*14.2*	*19.2*	*36.1*
Sept	*21.6*	*56.9*	*45.3*	*39.5*	*28.0*	*17.1*	*13.0*	*18.0*	*33.8*
Dec	*22.5*	*55.7*	*45.0*	*40.3*	*29.0*	*18.1*	*13.5*	*18.5*	*34.5*
2004 March	*22.7*	*58.2*	*45.7*	*40.2*	*29.4*	*18.5*	*13.4*	*18.2*	*32.9*
June	*23.0*	*57.2*	*46.3*	*40.8*	*29.2*	*18.6*	*13.7*	*19.2*	*33.5*
Sept	*21.9*	*56.8*	*45.8*	*40.0*	*28.4*	*17.9*	*12.8*	*17.8*	*33.0*
Dec	*22.0*	*56.3*	*44.5*	*39.3*	*28.6*	*17.8*	*13.0*	*18.2*	*32.5*
2005 March[P]	*22.5*	*57.5*	*47.3*	*41.1*	*29.2*	*18.1*	*13.1*	*18.0*	*32.6*
June[P]	*22.7*	*57.1*	*45.8*	*40.3*	*28.9*	*18.6*	*13.9*	*17.9*	*33.8*
Sept[P]	*21.4*	*56.1*	*45.3*	*39.1*	*27.5*	*17.5*	*12.6*	*17.2*	*32.1*
Dec[P]	*22.6*	*57.5*	*47.2*	*41.0*	*29.1*	*18.1*	*13.3*	*18.0*	*33.4*

Note: Conception figures are estimates derived from birth registrations and abortion notifications.
Rates for women of all ages, under 16, under 18, under 20 and 40 and over are based on the population of women aged 15–44, 13–15, 15–17, 15–19 and 40–44 respectively.
For a quarterly analysis of conceptions to women under 18 for local authority areas see the National Statistics website, www.statistics.gov.uk

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Table 4.2 Abortions: residents and non-residents; age and gestation (residents only)

England and Wales

Numbers (thousands) and rates; and percentages for gestation weeks

Year and quarter	All ages: All[1] women	All ages: Residents[1]	All ages: Non-[1] residents	All women (residents): Age group: Under 16	16–19	20–24	25–29	30–34	35–44	45 and over	Gestation weeks (percentages): Under 9	9–12	13–19	20 and over
	Numbers (thousands)										**Percentages**			
1976	129.7	101.9	27.8	3.4	24.0	23.6	19.3	14.6	14.7	0.5	*24.8*	*55.8*	*15.0*	*1.1*
1981	162.5	128.6	33.9	3.5	31.4	34.3	21.9	18.7	17.6	0.6	*31.0*	*53.4*	*13.5*	*1.3*
1986	172.3	147.6	24.7	3.9	33.8	45.3	28.7	18.0	17.5	0.4	*33.4*	*53.8*	*11.5*	*1.4*
1991	179.5	167.4	12.1	3.2	31.1	52.7	38.6	23.4	17.9	0.4	*35.2*	*52.9*	*10.6*	*1.2*
1996	177.5	167.9	9.6	3.6	28.8	46.4	39.3	28.2	21.1	0.4	*40.0*	*48.7*	*10.1*	*1.3*
1997	179.7	170.1	9.6	3.4	29.9	45.0	40.2	28.9	22.3	0.5	*41.2*	*47.9*	*9.6*	*1.2*
1998	187.4	177.9	9.5	3.8	33.2	45.8	40.4	30.4	23.8	0.5	*41.4*	*47.6*	*9.7*	*1.3*
1999	183.2	173.7	9.5	3.6	32.8	45.0	38.5	29.1	24.1	0.5	*42.5*	*46.5*	*9.5*	*1.4*
2000	185.4	175.5	9.8	3.7	33.2	47.1	37.9	28.7	24.4	0.5	*43.3*	*45.0*	*10.3*	*1.5*
2001	186.3	176.4	9.9	3.7	33.4	48.3	36.5	28.8	25.2	0.5	*42.8*	*45.0*	*10.6*	*1.6*
2002	185.4	175.9	9.5	3.7	33.0	48.4	35.8	28.5	26.0	0.5	*42.2*	*45.2*	*11.0*	*1.6*
2003	190.7	181.6	9.1	4.0	34.2	51.1	36.0	28.7	26.9	0.5	*43.6*	*43.7*	*11.1*	*1.6*
2004	194.5	185.7	8.8	3.8	35.5	52.8	37.8	28.1	27.3	0.5	*46.2*	*41.5*	*10.8*	*1.6*
2005	194.4	186.4	7.9	3.8	35.3	53.3	38.3	27.8	27.2	0.6	*53.6*	*35.7*	*9.3*	*1.4*
2002 March	47.6	45.2	2.5	0.9	8.6	12.6	9.2	7.3	6.5	0.1	*38.9*	*47.4*	*12.0*	*1.6*
June	45.9	43.5	2.5	0.9	8.2	12.0	8.9	7.0	6.4	0.1	*40.0*	*46.4*	*11.8*	*1.8*
Sept	46.5	44.1	2.4	1.0	8.2	11.9	8.9	7.3	6.6	0.1	*42.9*	*45.1*	*10.4*	*1.6*
Dec	45.3	43.2	2.1	0.9	8.0	11.9	8.8	6.9	6.5	0.1	*47.0*	*41.8*	*9.7*	*1.5*
2003 March	50.0	47.6	2.4	1.0	9.1	13.4	9.4	7.5	7.0	0.1	*40.9*	*45.3*	*12.2*	*1.6*
June	47.7	45.4	2.3	1.0	8.5	12.7	9.1	7.2	6.7	0.1	*42.5*	*44.4*	*11.4*	*1.6*
Sept	47.7	44.8	2.3	1.0	8.3	12.5	8.9	7.2	6.7	0.1	*43.3*	*43.9*	*11.2*	*1.5*
Dec	46.0	43.9	2.1	0.9	8.3	12.5	8.6	6.9	6.5	0.1	*47.7*	*41.0*	*9.6*	*1.7*
2004 March	51.1	48.7	2.4	1.0	9.4	13.9	9.8	7.5	7.0	0.1	*41.7*	*44.5*	*12.1*	*1.7*
June	48.9	46.6	2.3	1.0	8.9	13.3	9.5	6.9	6.9	0.1	*43.6*	*43.3*	*11.2*	*1.8*
Sept	48.4	46.3	2.1	1.0	8.9	13.0	9.4	7.0	6.9	0.1	*47.8*	*40.5*	*10.3*	*1.4*
Dec	46.1	44.2	1.9	1.0	8.4	12.6	9.1	6.6	6.5	0.1	*52.0*	*37.2*	*9.5*	*1.3*
2005 March	50.1	47.9	2.1	0.9	9.1	13.9	9.7	7.2	7.0	0.1	*47.2*	*40.4*	*11.0*	*1.4*
June	50.1	48.0	2.1	1.0	9.2	13.9	9.9	7.1	6.9	0.1	*53.8*	*35.6*	*9.2*	*1.4*
Sept	47.0	45.1	1.9	1.0	8.5	12.7	9.3	6.9	6.7	0.1	*56.5*	*33.6*	*8.5*	*1.3*
Dec	47.2	45.3	1.8	0.9	8.6	12.9	9.5	6.7	6.7	0.1	*57.2*	*32.9*	*8.3*	*1.5*
2006 March[p]	52.4	50.4	2.0	1.0	9.8	14.6	10.4	7.2	7.2	0.2	*50.7*	*37.3*	*10.5*	*1.6*
June[p]	51.3	49.3	2.0	1.0	9.4	14.2	10.3	7.2	7.0	0.2	*53.6*	*35.3*	*9.4*	*1.7*
Sept[p]	49.2	47.4	1.8	1.0	9.1	13.5	9.9	6.9	6.8	0.2	*56.1*	*33.3*	*9.1*	*1.5*
Rates (per thousand women residents)														
	ASR[3] (women 15–44)	Crude rate[2] (women 15–44)												
1976	10.2	10.5	:	2.9	16.9	14.2	10.4	9.2	5.3	0.3				
1981	11.9	12.4	:	3.0	19.4	18.6	13.1	10.1	5.9	0.4				
1986	13.0	13.5	:	3.7	22.0	21.9	15.5	10.8	5.1	0.3				
1991	15.0	15.2	:	3.8	24.0	27.1	18.5	12.6	5.1	0.3				
1996	16.0	15.7	:	3.9	24.2	28.4	19.9	13.6	6.0	0.2				
1997	16.3	15.9	:	3.7	24.4	28.8	20.7	13.8	6.2	0.3				
1998	17.1	16.6	:	4.0	26.8	30.2	21.2	14.6	6.5	0.3				
1999	16.8	16.2	:	3.8	26.3	29.7	20.8	14.1	6.4	0.3				
2000	17.0	16.3	:	3.9	26.9	30.7	20.9	14.1	6.3	0.3				
2001	17.0	16.2	:	3.7	26.6	30.6	20.9	14.2	6.4	0.3				
2002	17.0	16.1	:	3.7	25.8	30.1	21.4	14.2	6.5	0.3				
2003	17.5	16.6	:	3.9	26.1	31.2	22.1	14.6	6.6	0.3				
2004	17.8	16.9	:	3.7	26.5	31.9	23.3	14.7	6.7	0.3				
2005	17.8	17.0	:	3.7	26.3	32.0	23.6	14.5	6.6	0.3				
2002 March	17.4	16.6	:	3.7	26.9	31.6	21.7	14.4	6.6	0.2				
June	16.7	15.9	:	3.7	25.6	29.9	21.1	13.9	6.4	0.3				
Sept	16.9	16.1	:	3.8	25.1	29.2	21.9	14.8	6.5	0.2				
Dec	16.5	15.7	:	3.7	24.7	29.2	21.4	13.9	6.4	0.3				
2003 March	18.3	17.4	:	4.0	28.0	33.0	22.9	15.1	6.9	0.3				
June	17.4	16.6	:	4.0	26.1	31.1	22.3	14.5	6.6	0.3				
Sept	17.2	16.4	:	4.0	25.3	30.6	21.8	14.6	6.6	0.3				
Dec	16.8	16.0	:	3.7	25.2	30.4	21.1	14.2	6.4	0.3				
2004 March	18.7	17.8	:	3.9	28.3	33.8	24.1	15.4	6.9	0.3				
June	17.9	17.0	:	3.8	26.7	32.3	23.3	14.4	6.7	0.3				
Sept	17.8	16.9	:	3.7	26.6	31.5	23.0	14.8	6.8	0.3				
Dec	17.0	16.2	:	3.5	25.0	30.4	22.3	14.2	6.3	0.3				
2005 March	18.4	17.5	:	3.7	27.0	33.5	23.8	15.2	6.8	0.3				
June	18.4	17.5	:	3.8	27.2	33.3	24.1	15.3	6.7	0.3				
Sept	17.3	16.4	:	3.8	25.2	30.5	22.6	14.8	6.5	0.3				
Dec	17.4	16.5	:	3.6	25.4	30.9	23.0	14.4	6.5	0.3				
2006 March[p]	19.3	18.4	:	3.9	29.0	34.8	25.0	15.9	7.0	0.3				
June[p]	18.8	18.0	:	3.9	27.8	33.7	24.7	16.0	6.8	0.4				
Sept[p]	18.1	17.3	:	4.0	26.7	31.7	23.6	15.6	6.6	0.4				

Notes: Rates for Under 16 and 45 and over are based on female populations aged 13–15 and 45–49 respectively.

1 Includes cases with not stated age and/or gestation week.

2 Includes incomplete forms that have been returned to practitioners.

3 Rates for all women residents age-standardised to the European population for ages 15–44.

p provisional

Table 5.1 Period expectation of life at birth and selected age

Constituent countries of the United Kingdom

Years

Year	Males								Year	Females							
	At birth	At age								At birth	At age						
		5	20	30	50	60	70	80			5	20	30	50	60	70	80
United Kingdom																	
1981	70.8	66.9	52.3	42.7	24.1	16.3	10.1	5.8	1981	76.8	72.7	57.9	48.2	29.2	20.8	13.3	7.5
1986	71.9	67.8	53.2	43.6	24.9	16.8	10.5	6.0	1986	77.7	73.4	58.6	48.8	29.8	21.2	13.8	7.8
1991	73.2	68.9	54.2	44.7	26.0	17.7	11.1	6.4	1991	78.7	74.3	59.5	49.7	30.6	21.9	14.3	8.2
1996	74.3	69.8	55.1	45.6	26.9	18.5	11.6	6.6	1996	79.4	74.9	60.1	50.3	31.2	22.3	14.5	8.3
1997	74.5	70.1	55.4	45.9	27.2	18.8	11.7	6.7	1997	79.6	75.1	60.2	50.4	31.3	22.5	14.6	8.4
1998	74.8	70.3	55.6	46.1	27.4	18.9	11.9	6.7	1998	79.7	75.2	60.4	50.5	31.4	22.6	14.7	8.4
1999	75.0	70.6	55.9	46.3	27.6	19.2	12.0	6.8	1999	79.9	75.4	60.5	50.7	31.6	22.8	14.8	8.5
2000	75.4	70.9	56.2	46.6	28.0	19.5	12.3	7.0	2000	80.2	75.6	60.8	51.0	31.9	23.0	15.0	8.6
2001	75.7	71.2	56.5	46.9	28.3	19.8	12.5	7.1	2001	80.4	75.9	61.0	51.2	32.1	23.2	15.2	8.7
2002	75.9	71.5	56.7	47.2	28.5	20.0	12.6	7.2	2002	80.5	76.0	61.1	51.3	32.2	23.3	15.2	8.7
2003	76.3	71.8	57.0	47.4	28.8	20.2	12.9	7.3	2003	80.7	76.2	61.3	51.5	32.4	23.4	15.3	8.7
2004	76.6	72.1	57.4	47.8	29.0	20.5	13.1	7.4	2004	81.0	76.4	61.5	51.7	32.6	23.6	15.5	8.8
England and Wales																	
1981	71.0	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.1	48.3	29.4	20.9	13.4	7.5
1986	72.1	68.0	53.4	43.8	25.0	16.9	10.5	6.1	1986	77.9	73.6	58.8	49.0	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.4	44.8	26.1	17.8	11.2	6.4	1991	78.9	74.5	59.7	49.9	30.8	22.0	14.4	8.3
1996	74.5	70.1	55.4	45.8	27.1	18.7	11.6	6.6	1996	79.6	75.1	60.2	50.4	31.3	22.5	14.6	8.4
1997	74.8	70.3	55.6	46.1	27.4	18.9	11.8	6.7	1997	79.7	75.2	60.4	50.6	31.5	22.6	14.7	8.4
1998	75.0	70.6	55.8	46.3	27.6	19.1	11.9	6.8	1998	79.9	75.4	60.5	50.7	31.6	22.7	14.8	8.4
1999	75.3	70.8	56.1	46.5	27.8	19.3	12.1	6.9	1999	80.1	75.6	60.7	50.9	31.8	22.9	14.9	8.5
2000	75.6	71.2	56.4	46.9	28.1	19.6	12.3	7.0	2000	80.3	75.8	61.0	51.1	32.0	23.1	15.1	8.6
2001	76.0	71.5	56.7	47.2	28.5	19.9	12.6	7.1	2001	80.6	76.0	61.2	51.4	32.2	23.3	15.2	8.7
2002	76.2	71.7	57.0	47.4	28.7	20.1	12.7	7.2	2002	80.7	76.1	61.3	51.5	32.3	23.4	15.3	8.7
2003	76.5	72.0	57.3	47.7	28.9	20.4	13.0	7.3	2003	80.9	76.4	61.5	51.7	32.5	23.6	15.4	8.8
2004	76.9	72.4	57.6	48.0	29.2	20.6	13.2	7.4	2004	81.1	76.6	61.7	51.9	32.7	23.8	15.6	8.9
England																	
1981	71.1	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.2	48.4	29.4	20.9	13.4	7.5
1986	72.2	68.1	53.4	43.8	25.1	17.0	10.6	6.1	1986	77.9	73.6	58.8	49.0	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.4	44.9	26.2	17.8	11.2	6.4	1991	78.9	74.5	59.7	49.9	30.8	22.0	14.4	8.3
1996	74.5	70.1	55.4	45.9	27.1	18.7	11.7	6.6	1996	79.6	75.1	60.3	50.5	31.3	22.5	14.6	8.4
1997	74.8	70.4	55.6	46.1	27.4	18.9	11.8	6.7	1997	79.8	75.3	60.4	50.6	31.5	22.6	14.7	8.4
1998	75.0	70.6	55.9	46.3	27.6	19.1	12.0	6.8	1998	79.9	75.4	60.6	50.7	31.6	22.7	14.8	8.5
1999	75.3	70.9	56.1	46.6	27.9	19.4	12.1	6.9	1999	80.1	75.6	60.8	50.9	31.8	22.9	14.9	8.5
2000	75.7	71.2	56.5	46.9	28.2	19.6	12.4	7.0	2000	80.4	75.8	61.0	51.2	32.0	23.1	15.1	8.6
2001	76.0	71.5	56.8	47.2	28.5	19.9	12.6	7.1	2001	80.6	76.1	61.2	51.4	32.3	23.4	15.3	8.7
2002	76.2	71.8	57.0	47.4	28.7	20.1	12.8	7.2	2002	80.7	76.2	61.3	51.5	32.4	23.4	15.3	8.7
2003	76.6	72.1	57.3	47.7	29.0	20.4	13.0	7.3	2003	80.9	76.4	61.5	51.7	32.6	23.6	15.5	8.8
2004	76.9	72.4	57.6	48.0	29.3	20.7	13.2	7.5	2004	81.2	76.6	61.8	51.9	32.8	23.8	15.6	8.9
Wales																	
1981	70.4	66.5	51.9	42.2	23.6	15.8	9.7	5.6	1981	76.4	72.3	57.5	47.7	28.9	20.5	13.1	7.4
1986	71.6	67.5	52.8	43.2	24.6	16.6	10.3	6.0	1986	77.5	73.3	58.5	48.7	29.7	21.1	13.7	7.8
1991	73.1	68.8	54.1	44.6	25.8	17.6	11.0	6.4	1991	78.8	74.3	59.5	49.7	30.6	21.8	14.3	8.3
1996	73.9	69.4	54.7	45.3	26.6	18.2	11.3	6.4	1996	79.1	74.6	59.7	49.9	30.9	22.1	14.4	8.3
1997	74.3	69.8	55.1	45.6	26.9	18.5	11.6	6.6	1997	79.3	74.8	60.0	50.2	31.1	22.3	14.5	8.4
1998	74.4	70.0	55.2	45.8	27.1	18.6	11.6	6.6	1998	79.4	74.9	60.0	50.2	31.1	22.3	14.5	8.3
1999	74.7	70.2	55.5	46.1	27.4	18.9	11.9	6.8	1999	79.6	75.1	60.2	50.4	31.3	22.5	14.6	8.4
2000	74.9	70.5	55.8	46.3	27.6	19.1	12.0	6.8	2000	79.8	75.3	60.4	50.6	31.5	22.6	14.7	8.4
2001	75.4	70.9	56.2	46.7	28.0	19.5	12.3	7.1	2001	80.1	75.5	60.6	50.8	31.8	22.9	14.9	8.5
2002	75.7	71.1	56.3	46.9	28.2	19.7	12.4	7.1	2002	80.2	75.6	60.7	50.9	31.8	22.9	15.0	8.6
2003	76.0	71.4	56.7	47.1	28.5	20.0	12.6	7.2	2003	80.4	75.8	60.9	51.1	32.0	23.1	15.1	8.6
2004	76.3	71.8	57.0	47.4	28.8	20.3	12.8	7.3	2004	80.7	76.0	61.2	51.3	32.2	23.3	15.2	8.7
Scotland																	
1981	69.1	65.2	50.6	41.1	22.9	15.4	9.6	5.5	1981	75.3	71.2	56.4	46.7	27.9	19.7	12.7	7.2
1986	70.2	66.0	51.4	41.9	23.5	15.8	9.9	5.7	1986	76.2	71.9	57.1	47.3	28.4	20.1	13.0	7.5
1991	71.4	67.1	52.5	43.0	24.6	16.6	10.4	6.1	1991	77.1	72.7	57.9	48.1	29.2	20.7	13.5	7.9
1996	72.2	67.8	53.1	43.7	25.3	17.3	10.9	6.3	1996	77.9	73.3	58.5	48.8	29.8	21.2	13.8	8.0
1997	72.4	68.0	53.3	43.9	25.6	17.5	11.0	6.4	1997	78.0	73.5	58.7	48.9	30.0	21.4	13.9	8.0
1998	72.6	68.2	53.5	44.2	25.8	17.8	11.1	6.5	1998	78.2	73.6	58.8	49.0	30.1	21.4	13.9	8.0
1999	72.8	68.4	53.7	44.4	26.0	18.0	11.3	6.6	1999	78.4	73.8	59.0	49.2	30.3	21.6	14.0	8.1
2000	73.1	68.6	53.9	44.6	26.3	18.2	11.5	6.6	2000	78.6	74.0	59.2	49.4	30.5	21.8	14.1	8.1
2001	73.3	68.8	54.2	44.8	26.6	18.4	11.7	6.8	2001	78.8	74.2	59.4	49.6	30.7	22.0	14.3	8.2
2002	73.5	69.0	54.3	45.0	26.7	18.6	11.8	6.8	2002	78.9	74.3	59.5	49.7	30.8	22.1	14.4	8.2
2003	73.8	69.3	54.6	45.2	27.0	18.8	12.0	6.9	2003	79.1	74.5	59.7	49.9	30.9	22.2	14.5	8.3
2004	74.2	69.7	55.0	45.6	27.3	19.1	12.2	7.0	2004	79.3	74.7	59.9	50.1	31.1	22.4	14.7	8.4
Northern Ireland																	
1981	69.2	65.4	50.9	41.5	23.2	15.6	9.7	5.8	1981	75.5	71.6	56.8	47.1	28.3	20.0	12.8	7.3
1986	70.9	66.8	52.2	42.7	24.2	16.4	10.4	6.2	1986	77.1	72.9	58.1	48.3	29.3	20.8	13.4	7.8
1991	72.6	68.2	53.6	44.1	25.5	17.3	11.0	6.4	1991	78.4	74.0	59.2	49.4	30.3	21.6	14.2	8.3
1996	73.8	69.4	54.7	45.3	26.6	18.2	11.4	6.6	1996	79.2	74.7	59.9	50.0	30.9	22.1	14.4	8.4
1997	74.2	69.7	55.0	45.5	26.8	18.4	11.5	6.6	1997	79.5	75.0	60.2	50.3	31.2	22.4	14.5	8.4
1998	74.3	69.8	55.2	45.7	27.0	18.6	11.6	6.6	1998	79.5	75.0	60.2	50.4	31.2	22.4	14.5	8.2
1999	74.5	70.0	55.4	45.9	27.2	18.8	11.7	6.6	1999	79.6	75.1	60.2	50.4	31.3	22.5	14.6	8.2
2000	74.8	70.4	55.7	46.2	27.6	19.1	11.9	6.6	2000	79.8	75.2	60.4	50.6	31.5	22.6	14.6	8.2
2001	75.2	70.7	56.1	46.6	27.9	19.4	12.3	6.9	2001	80.1	75.6	60.7	50.9	31.8	22.9	14.9	8.4
2002	75.6	71.1	56.4	46.9	28.2	19.7	12.4	7.0	2002	80.4	75.9	61.0	51.2	32.0	23.1	15.1	8.5
2003	75.8	71.4	56.7	47.1	28.4	19.9	12.6	7.2	2003	80.6	76.0	61.1	51.3	32.2	23.3	15.2	8.6
2004	76.0	71.6	56.9	47.4	28.7	20.2	12.8	7.3	2004	80.8	76.3	61.4	51.6	32.5	23.5	15.4	8.7

Note: Figures from 1981 are calculated from the population estimates revised in the light of the 2001 Census. All figures are based on a three-year period.

Table 6.1 Deaths: age and sex

England and Wales

Numbers (thousands) and rates

Year and quarter	All ages	Age group: Under 1[1]	1–4	5–9	10–14	15–19	20–24	25–34	35–44	45–54	55–64	65–74	75–84	85 and over
Numbers (thousands)														
Males														
1976	300.1	4.88	0.88	0.68	0.64	1.66	1.66	3.24	5.93	20.4	52.0	98.7	80.3	29.0
1981	289.0	4.12	0.65	0.45	0.57	1.73	1.58	3.18	5.54	16.9	46.9	92.2	86.8	28.5
1986	287.9	3.72	0.57	0.33	0.38	1.43	1.75	3.10	5.77	14.4	43.6	84.4	96.2	32.2
1991	277.6	2.97	0.55	0.34	0.35	1.21	1.76	3.69	6.16	13.3	34.9	77.2	95.8	39.3
1996	268.7	2.27	0.44	0.24	0.29	0.93	1.41	4.06	5.84	13.6	30.1	71.0	90.7	47.8
1999	264.3	2.08	0.41	0.22	0.28	0.90	1.27	3.85	5.93	13.6	28.7	64.3	90.4	52.3
2000	255.5	1.89	0.34	0.22	0.28	0.87	1.22	3.76	6.05	13.4	27.9	60.6	87.1	51.9
2001	252.4	1.81	0.32	0.19	0.28	0.88	1.27	3.63	6.07	13.3	27.5	57.5	87.0	52.7
2002	253.1	1.81	0.32	0.20	0.28	0.83	1.24	3.47	6.20	12.9	27.7	56.3	88.3	53.6
2003	253.9	1.81	0.31	0.19	0.24	0.81	1.23	3.26	6.32	12.7	28.2	55.1	89.6	54.0
2004	244.1	1.79	0.29	0.17	0.26	0.78	1.15	3.10	6.19	12.2	27.0	52.5	87.3	51.3
2005	243.3	1.87	0.28	0.16	0.25	0.75	1.11	2.89	6.14	12.1	27.3	51.0	84.8	54.7
Females														
1976	298.5	3.46	0.59	0.45	0.42	0.62	0.67	1.94	4.04	12.8	29.6	67.1	104.7	72.1
1981	288.9	2.90	0.53	0.30	0.37	0.65	0.64	1.82	3.74	10.5	27.2	62.8	103.6	73.9
1986	293.3	2.59	0.49	0.25	0.27	0.56	0.67	1.65	3.83	8.8	25.8	58.4	106.5	83.6
1991	292.5	2.19	0.44	0.25	0.22	0.46	0.64	1.73	3.70	8.4	21.3	54.2	103.3	95.7
1996	291.5	1.69	0.32	0.18	0.20	0.43	0.51	1.85	3.66	8.9	18.2	50.2	96.7	108.7
1999	291.8	1.55	0.30	0.17	0.22	0.39	0.47	1.67	3.79	9.0	18.0	45.1	93.9	117.2
2000	280.1	1.49	0.25	0.16	0.18	0.38	0.47	1.69	3.87	9.1	17.6	42.2	89.3	113.4
2001	277.9	1.43	0.27	0.19	0.18	0.38	0.47	1.59	3.77	8.9	17.6	40.5	88.8	113.9
2002	280.4	1.31	0.24	0.16	0.19	0.38	0.43	1.61	3.77	8.7	17.7	39.6	90.0	116.3
2003	284.4	1.50	0.28	0.15	0.19	0.35	0.46	1.57	3.86	8.5	18.0	39.0	92.7	117.9
2004	268.4	1.43	0.23	0.13	0.16	0.38	0.46	1.49	3.80	8.1	17.6	36.9	88.3	109.4
2005	269.4	1.39	0.22	0.13	0.18	0.37	0.46	1.42	3.73	8.1	17.8	36.0	86.4	113.2
Rates (deaths per 1,000 population in each age group)														
Males														
1976	12.5	16.2	0.65	0.34	0.31	0.88	0.96	0.92	2.09	6.97	19.6	50.3	116.4	243.2
1981	12.0	12.6	0.53	0.27	0.29	0.82	0.83	0.89	1.83	6.11	17.7	45.6	105.2	226.5
1986	11.8	11.0	0.44	0.21	0.23	0.72	0.83	0.88	1.68	5.27	16.6	42.8	101.2	215.4
1991	11.2	8.3	0.40	0.21	0.23	0.72	0.89	0.94	1.76	4.56	13.9	38.1	93.1	205.6
1996	10.7	6.8	0.32	0.14	0.18	0.60	0.85	1.01	1.67	4.06	11.9	34.5	85.0	198.8
1999	10.4	6.5	0.31	0.12	0.16	0.56	0.83	0.99	1.60	3.99	10.9	31.6	79.9	194.4
2000	10.0	6.1	0.26	0.13	0.16	0.54	0.79	0.98	1.59	3.92	10.4	29.7	75.9	187.5
2001	9.9	5.9	0.25	0.11	0.16	0.53	0.80	0.97	1.56	3.89	10.0	28.0	74.0	186.4
2002	9.8	5.9	0.25	0.12	0.16	0.49	0.77	0.95	1.57	3.85	9.7	27.2	73.4	187.5
2003	9.8	5.7	0.25	0.11	0.14	0.46	0.95	0.91	1.58	3.81	9.6	26.3	72.8	190.4
2004	9.4	5.5	0.23	0.10	0.15	0.44	0.68	0.88	1.53	3.67	9.0	24.9	69.8	175.2
2005	9.3	5.7	0.23	0.10	0.14	0.42	0.64	0.82	1.51	3.59	8.9	24.0	67.4	171.6
2003 March	10.5	6.4	0.27	0.12	0.16	0.48	0.77	0.94	1.62	3.94	10.0	27.8	72.8	214.3
June	9.4	5.5	0.24	0.09	0.12	0.45	0.74	0.92	1.60	3.78	9.2	25.4	70.2	179.1
Sept	9.0	5.2	0.19	0.11	0.14	0.52	0.79	0.93	1.57	3.63	9.1	24.6	66.1	165.9
Dec	10.3	5.8	0.29	0.13	0.13	0.39	0.69	0.84	1.52	3.91	10.0	27.7	77.0	202.8
2004 March	10.2	5.9	0.25	0.12	0.15	0.46	0.67	0.92	1.59	3.81	9.4	26.6	76.9	199.3
June	9.1	5.2	0.23	0.12	0.14	0.39	0.74	0.94	1.58	3.72	8.8	24.5	66.9	164.0
Sept	8.7	5.3	0.23	0.10	0.18	0.46	0.71	0.86	1.47	3.58	8.5	23.2	64.5	154.8
Dec	9.5	5.5	0.23	0.08	0.11	0.43	0.58	0.78	1.49	3.58	9.2	25.4	70.8	183.0
2005 March	10.5	6.2	0.26	0.09	0.17	0.46	0.71	0.88	1.56	3.83	9.7	26.6	77.3	201.2
June	9.1	5.5	0.25	0.10	0.18	0.42	0.59	0.83	1.57	3.53	8.8	23.4	65.8	162.9
Sept	8.3	5.3	0.20	0.09	0.12	0.40	0.63	0.85	1.44	3.46	8.3	22.2	59.6	146.0
Dec	9.3	5.6	0.21	0.11	0.11	0.39	0.62	0.73	1.46	3.54	8.8	24.0	66.9	176.9
2006[2] March[p]	10.2	5.3	0.29	0.14	0.16	0.47	0.75	0.96	1.59	3.86	9.7	25.2	74.1	205.8
June[p]	9.0	5.5	0.24	0.09	0.15	0.45	0.69	0.88	1.57	3.59	8.8	23.0	63.5	158.9
Sept[p]	8.3	5.3	0.14	0.11	0.15	0.50	0.58	0.82	1.48	3.40	8.3	21.2	58.2	143.7
Females														
1976	11.8	12.2	0.46	0.24	0.21	0.35	0.40	0.56	1.46	4.30	10.1	26.0	74.6	196.6
1981	11.3	9.4	0.46	0.19	0.19	0.32	0.35	0.52	1.26	3.80	9.5	24.1	66.2	178.2
1986	11.4	8.0	0.40	0.17	0.17	0.29	0.33	0.47	1.12	3.24	9.2	23.4	62.5	169.4
1991	11.2	6.4	0.33	0.16	0.15	0.29	0.33	0.44	1.05	2.87	8.2	21.8	58.7	161.6
1996	11.0	5.3	0.25	0.10	0.12	0.29	0.31	0.46	1.04	2.63	7.1	20.6	55.8	158.9
1999	11.0	5.1	0.24	0.10	0.13	0.25	0.31	0.43	1.01	2.61	6.7	19.2	53.4	162.6
2000	10.5	5.1	0.20	0.10	0.11	0.25	0.30	0.44	1.00	2.62	6.4	18.1	50.8	155.2
2001	10.4	4.9	0.22	0.12	0.11	0.24	0.30	0.42	0.96	2.57	6.3	17.4	50.1	155.0
2002	10.4	4.5	0.20	0.10	0.11	0.24	0.27	0.44	0.94	2.54	6.0	17.0	50.4	159.4
2003	10.6	4.9	0.24	0.10	0.12	0.21	0.28	0.44	0.95	2.51	5.9	16.7	51.3	165.8
2004	9.9	4.6	0.20	0.09	0.10	0.22	0.27	0.42	0.93	2.39	5.7	15.8	48.6	154.3
2005	9.9	4.4	0.19	0.09	0.11	0.22	0.27	0.40	0.90	2.38	5.6	15.4	48.1	152.7
2003 March	11.4	5.3	0.26	0.09	0.09	0.19	0.33	0.48	1.00	2.59	6.1	17.6	54.8	184.6
June	10.0	4.8	0.24	0.09	0.17	0.22	0.25	0.43	0.90	2.58	5.8	16.1	49.3	153.6
Sept	9.6	4.5	0.20	0.12	0.10	0.21	0.30	0.43	0.97	2.38	5.6	15.3	46.8	147.6
Dec	11.2	5.2	0.26	0.09	0.10	0.24	0.25	0.40	0.94	2.49	6.2	17.8	54.3	177.5
2004 March	11.1	5.3	0.22	0.09	0.10	0.27	0.32	0.42	0.95	2.50	6.0	17.1	53.9	177.0
June	9.4	4.1	0.17	0.08	0.11	0.26	0.27	0.43	0.94	2.41	5.4	15.0	46.5	144.3
Sept	9.1	4.3	0.20	0.06	0.09	0.20	0.24	0.42	0.88	2.27	5.4	14.9	44.6	137.5
Dec	10.1	4.6	0.19	0.11	0.09	0.17	0.27	0.40	0.93	2.36	5.9	16.1	49.5	158.4
2005 March	11.6	4.8	0.22	0.09	0.13	0.20	0.32	0.46	0.95	2.57	6.0	17.3	57.0	184.7
June	9.5	4.7	0.20	0.10	0.10	0.25	0.27	0.37	0.97	2.31	5.5	15.0	46.6	144.2
Sept	8.7	3.9	0.14	0.06	0.09	0.20	0.24	0.36	0.86	2.32	5.4	13.8	42.0	129.7
Dec	9.8	4.2	0.19	0.08	0.11	0.22	0.24	0.41	0.84	2.31	5.6	15.3	46.8	152.7
2006[2] March[p]	11.0	5.0	0.25	0.07	0.07	0.24	0.32	0.39	1.01	2.45	6.2	16.4	51.9	180.5
June[p]	9.4	4.6	0.22	0.10	0.14	0.19	0.25	0.42	0.88	2.33	5.4	14.7	45.3	141.9
Sept[p]	8.5	4.2	0.18	0.10	0.08	0.23	0.23	0.36	0.90	2.24	5.2	13.6	40.9	124.8

Note: Figures represent the numbers of deaths registered in each year up to 1992 and the numbers of deaths occurring in each year from 1993 to 2005. Provisional figures for 2006 relate to registrations.

1 Rates per 1,000 live births.

2 Death rates for 2006 are based on the 2004-based population projections for 2006.

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Table 6.2 Deaths: subnational

Government Office Regions of England

Rates

Year and quarter	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East	London	South East	South West
Total deaths (deaths per 1,000 population of all ages)									
1996	11.7	11.7	11.2	10.7	10.7	10.3	9.4	10.7	11.7
1997	11.6	11.6	11.1	10.5	10.6	10.2	9.0	10.6	11.7
1998	11.9	11.7	11.2	10.8	10.6	10.2	8.8	10.4	11.4
1999	11.6	11.5	10.9	10.7	10.7	10.3	8.7	10.5	11.6
2000	10.8	10.7	10.3	10.0	10.3	9.9	8.2	9.8	11.3
2001	11.1	11.0	10.4	10.1	10.2	9.9	7.9	9.9	11.0
2002	11.2	11.0	10.5	10.2	10.2	10.0	7.8	9.9	11.1
2003	11.3	11.0	10.5	10.3	10.4	9.9	7.8	9.9	11.2
2004	10.9	10.5	10.1	9.7	9.8	9.5	7.2	9.4	10.4
2005	10.7	10.4	9.9	9.8	9.9	9.5	7.0	9.4	10.5
2004 March	11.8	11.6	11.2	10.7	10.8	10.5	8.0	10.4	11.6
June	10.6	10.0	9.6	9.3	9.5	9.2	7.0	9.1	9.9
Sept	9.8	9.7	9.3	9.0	9.0	8.8	6.6	8.7	9.5
Dec	11.2	10.6	10.3	9.9	10.1	9.6	7.4	9.6	10.7
2005 March	12.1	12.0	11.4	11.1	11.5	10.9	8.2	10.9	12.1
June	10.6	10.0	9.6	9.5	9.5	9.2	6.8	9.1	10.2
Sept	9.5	9.2	8.8	8.6	8.8	8.4	6.3	8.3	9.3
Dec	10.7	10.3	9.9	9.9	9.8	9.5	6.9	9.4	10.4
2006[1] March[p]	11.6	11.4	10.9	11.0	11.2	10.9	7.8	10.9	11.7
June[p]	10.7	10.3	9.8	9.6	9.7	9.4	6.7	9.1	10.1
Sept[p]	9.5	9.5	9.1	8.8	9.0	8.5	6.3	8.4	9.4
Infant mortality (deaths under 1 year per 1,000 live births)									
1996	6.2	6.3	6.5	6.3	6.8	5.3	6.3	5.3	5.5
1997	5.8	6.7	6.5	5.7	7.0	4.8	5.8	5.0	5.8
1998	5.0	6.3	6.9	5.6	6.5	5.0	6.0	4.4	4.8
1999	5.6	6.5	6.3	6.0	6.9	4.6	6.0	4.8	4.7
2000	6.5	6.2	7.3	5.4	6.8	4.4	5.4	4.4	4.7
2001	5.4	5.8	5.5	4.9	6.4	4.5	6.1	4.2	5.4
2002	4.8	5.4	6.1	5.6	6.6	4.3	5.5	4.5	4.3
2003	4.9	5.9	5.7	5.9	7.4	4.5	5.4	4.2	4.1
2004	4.6	5.4	5.8	4.9	6.3	4.2	5.2	3.9	4.5
2005	4.7	5.6	6.0	4.8	6.6	4.0	5.2	3.9	4.5
2004 March	5.9	6.1	6.1	4.8	6.9	4.9	5.7	4.5	5.0
June	4.6	4.9	5.8	4.8	5.6	4.0	4.6	3.3	4.8
Sept	3.1	5.3	4.9	4.3	7.0	4.3	5.0	3.5	4.2
Dec	4.8	5.3	6.3	5.6	5.6	3.5	5.5	4.5	4.2
2005 March	4.8	6.1	6.0	7.3	7.1	4.8	5.4	3.9	5.3
June	4.8	5.4	7.0	5.1	6.4	4.2	5.7	3.4	4.4
Sept	4.8	4.8	5.4	3.4	7.5	3.7	4.7	4.0	3.6
Dec	4.5	6.1	5.6	3.8	5.6	3.3	5.0	4.4	4.9
2006 March[p]	5.4	6.0	5.4	5.9	6.6	3.8	5.5	4.3	4.2
June[p]	6.4	5.5	6.1	5.0	7.0	4.3	4.5	4.2	3.8
Sept[p]	5.3	5.2	4.9	5.2	6.8	3.5	4.7	4.2	3.6
Neonatal mortality (deaths under 4 weeks per 1,000 live births)									
1996	4.1	4.0	4.2	4.2	4.9	3.5	4.4	3.5	3.8
1997	3.7	4.3	4.4	3.7	5.0	3.3	3.7	3.4	3.9
1998	3.1	4.1	4.5	3.7	4.8	3.4	4.1	2.9	3.3
1999	4.1	4.4	4.1	4.3	4.8	3.0	4.1	3.2	3.2
2000	4.4	4.3	5.0	4.1	5.0	3.0	3.7	3.1	3.0
2001	3.5	3.8	3.2	3.4	4.4	2.9	4.1	2.9	3.7
2002	3.2	3.6	4.0	4.0	4.8	2.9	3.6	2.9	3.1
2003	3.2	4.1	4.0	4.2	5.1	3.0	3.7	2.8	2.9
2004	2.8	3.6	3.8	3.5	4.7	2.9	3.6	2.8	3.2
2005[p]	2.9	3.8	4.0	3.5	4.9	2.6	3.4	2.7	3.2
2004 March	3.7	3.5	4.0	3.5	5.3	3.4	3.9	2.7	3.8
June	3.2	3.4	4.0	3.6	4.2	3.1	3.1	2.5	2.9
Sept	1.4	3.8	3.2	3.3	5.5	3.0	3.5	2.6	3.0
Dec	2.8	3.5	4.1	3.6	3.9	2.1	3.6	3.2	3.1
2005 March[p]	3.3	3.9	4.3	5.1	4.9	2.9	3.2	2.8	3.5
June[p]	3.0	3.5	4.3	3.7	4.9	3.0	3.8	2.1	3.2
Sept[p]	2.7	3.1	3.9	2.8	5.7	2.7	3.5	2.9	2.7
Dec[p]	2.8	4.6	3.5	2.4	4.1	1.8	3.0	3.1	3.5
2006 March[p]	4.1	3.8	4.0	4.2	4.7	2.7	3.3	2.9	3.2
June[p]	4.0	3.8	4.2	3.9	5.1	3.1	3.2	2.6	2.4
Sept[p]	3.5	3.5	3.3	3.8	5.5	2.4	3.3	2.9	2.6
Perinatal mortality (stillbirths and deaths under 1 week per 1,000 total births)									
1996	9.2	8.6	8.3	8.7	10.2	7.5	9.6	7.8	7.5
1997	8.0	8.9	8.3	7.7	9.6	7.3	9.0	7.3	8.7
1998	8.2	8.7	9.2	8.0	9.3	7.4	9.0	6.8	7.3
1999	8.2	8.7	8.3	7.8	9.9	7.0	9.0	6.9	7.8
2000	8.5	8.6	9.6	7.8	9.6	7.1	9.0	6.6	6.6
2001	7.8	8.7	7.5	7.9	9.1	7.1	8.9	6.9	7.2
2002	8.1	8.5	9.0	8.5	10.0	7.5	9.3	6.9	6.8
2003[2]	7.8	9.0	9.1	9.5	10.2	7.3	9.6	7.0	7.0
2004[2]	7.9	8.4	9.4	8.1	9.6	7.6	9.3	7.0	7.2
2005[p]	7.8	8.2	9.4	7.6	9.9	6.4	8.5	6.8	6.8
2004[2] March	9.6	8.2	9.4	8.4	10.1	8.0	9.3	7.2	6.6
June	9.1	8.3	9.4	8.5	9.2	7.4	9.0	6.9	7.5
Sept	6.8	8.3	9.8	8.2	10.3	7.7	9.6	7.0	8.1
Dec	6.2	8.8	9.0	7.2	8.8	7.2	9.3	7.1	6.6
2005 March[p]	6.6	8.4	9.7	9.3	9.0	6.9	8.4	6.7	6.8
June[p]	9.2	8.2	10.4	7.6	10.9	7.4	8.8	6.5	7.5
Sept[p]	7.1	7.4	8.6	7.2	11.0	6.1	8.9	7.1	5.7
Dec[p]	8.4	8.9	9.0	6.5	8.8	5.3	7.9	7.0	7.1
2006 March[p]	8.0	7.9	7.1	8.6	9.6	7.1	8.3	7.3	6.5
June[p]	8.7	7.9	8.5	9.1	10.1	6.9	7.8	6.5	6.7
Sept[p]	7.3	7.3	8.1	8.4	9.5	6.3	7.8	6.4	6.2

Note: Figures represent the numbers of deaths occurring in each year with the exception of provisional figures for 2005 and 2006 which relate to registrations.
1 Total deaths rates for 2006 have been calculated using the mid 2005 population estimates published on 24 August 2006.
2 Perinatal mortality figures for 2003 and 2004 were revised in HSQ31 to include stillbirths data notified to ONS too late to be included in the original statistics.
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Table 6.3 Deaths: selected causes (International Classification)[1] and sex

England and Wales

Number (thousands) and rate for all deaths and age-standardised rates per million population for selected causes

Year and quarter	All deaths		All causes (age - standardised rates per million population[2])	Malignant neoplasms									
	Number (thousands)	Crude rate per 100,000 population		Oesophagus	Stomach	Colon	Rectosigmoid junction, rectum, and anus	Trachea, bronchus and lung	Melanoma of skin	Other malignant neoplasms of skin	Breast	Cervix uteri	Ovary
			A00–R99 V01–Y89	(C15)	(C16)	(C18)	(C19–C21)	(C33–C34)	(C43)	(C44)	(C50)	(C53)	(C56)
Males													
1971	288.4	1,207	13,466	76	317	187	144	1,066	10	12	4	:	:
1981	289.0	1,196	12,189	90	251	181	135	1,028	17	9	3	:	:
1991	277.6	1,125	10,291	117	185	194	117	842	23	10	3	:	:
1998	264.7	1,064	8,981	129	132	169	95	643	26	8	3	:	:
1999	264.3	1,044	8,862	127	127	161	90	611	27	7	2	:	:
2000	255.5	1,005	8,437	128	118	158	89	592	28	7	2	:	:
2001	252.4	987	8,188	129	111	155	89	570	26	7	3	:	:
2002	253.1	985	8,074	131	109	150	90	559	27	8	3	:	:
2003	253.9	982	7,985	134	101	145	90	538	28	8	2	:	:
2004	244.1	939	7,535	129	95	142	91	520	30	9	2	:	:
2005	243.3	929	7,337	132	92	137	92	513	28	8	2	:	:
2004 March	66.2	1,024	8,194	130	95	145	86	518	27	10	3	:	:
June	58.8	909	7,311	122	98	142	90	511	30	8	2	:	:
Sept	56.8	869	6,989	128	93	142	98	513	30	8	2	:	:
Dec	62.4	955	7,651	136	93	141	91	539	31	11	1	:	:
2005 March	67.8	1,050	8,251	134	92	139	91	528	29	7	3	:	:
June	59.1	906	7,158	135	95	131	94	489	27	7	2	:	:
Sept	55.1	834	6,624	130	95	134	89	499	27	8	3	:	:
Dec	61.3	929	7,333	130	87	145	94	538	28	8	2	:	:
2006[3] March[p]	66.4	1,022	7,908	131	81	133	98	519	32	7	2	:	:
June[p]	59.3	902	6,987	132	82	127	86	501	30	7	2	:	:
Sept[p]	55.2	830	6,490	127	81	132	85	493	29	7	1	:	:
Females													
1971	278.9	1,104	8,189	40	149	176	79	183	14	6	379	83	126
1981	288.9	1,134	7,425	42	111	157	74	252	16	5	405	69	121
1991	292.5	1,122	6,410	50	74	146	61	300	18	4	401	54	118
1993	299.2	1,142	6,427	52	66	138	53	296	22	3	378	47	115
1994	285.6	1,088	6,115	51	67	136	52	296	22	4	371	42	114
1995	295.2	1,121	6,206	52	62	131	49	294	20	4	361	42	116
1996	291.5	1,105	6,068	52	55	126	49	293	20	3	344	41	121
1997	290.4	1,098	6,001	51	57	122	48	285	20	3	337	37	115
1998	290.3	1,108	5,945	49	54	117	47	291	21	3	328	35	116
1999	291.8	1,097	5,929	52	51	115	46	289	20	3	319	33	111
2000	280.1	1,049	5,655	51	48	107	45	285	21	3	311	33	109
2001	277.9	1,038	5,543	48	46	103	45	283	20	3	308	31	112
2002	280.4	1,044	5,526	51	44	104	44	284	19	3	302	29	112
2003	284.4	1,055	5,578	50	42	98	46	285	20	3	293	27	108
2004	268.4	992	5,259	48	42	96	47	284	19	3	285	27	102
2005	269.4	990	5,188	48	39	96	46	290	21	3	284	26	102
2004 March	74.4	1,105	5,795	51	38	97	46	292	21	3	287	28	105
June	63.4	942	5,022	46	41	94	47	265	18	4	284	25	97
Sept	61.8	908	4,863	50	43	95	45	281	19	3	276	27	102
Dec	68.9	1,013	5,359	46	44	100	49	299	20	2	293	28	101
2005 March	77.9	1,162	5,974	50	41	92	47	290	20	4	292	26	101
June	64.7	953	5,033	45	36	96	47	288	22	4	281	27	105
Sept	59.6	868	4,629	50	40	102	43	283	20	3	281	26	99
Dec	67.2	979	5,133	47	39	95	45	300	20	3	281	24	104
2006[3] March[p]	74.4	1,104	5,662	48	40	90	45	308	16	4	296	26	104
June[p]	64.3	943	4,899	46	34	89	46	293	18	4	265	22	101
Sept[p]	58.8	852	4,518	47	32	99	44	287	19	3	270	23	95

Note: Figures represent the number of deaths registered in each year up to 1992 and the number of deaths occurring in each year from 1993 to 2005. Provisional figures for 2006 relate to registrations.
The rates by cause of death in this table are based on final underlying cause. For further details see the Explanatory Notes in the 'Report: Death registrations in England and Wales, 2004: causes' in HSQ26.

1 The Ninth Revision of the International Classification of Diseases, 1975, came into operation in England and Wales on 1 January 1979. The Tenth Revision of the International Classification of Diseases, 1992, came into operation in England and Wales on 1 January 2001. The cause descriptions and codes relate to ICD-10. For changes to this table see 'In Brief', Health Statistics Quarterly 14.
2 Directly age-standardised to the European Standard Population. See Notes to Tables.
3 Death rates for 2006 are based on the 2004-based population projections for 2006.
p provisional

Table 6.3 continued **Deaths: selected causes (International Classification)[1] and sex**

England and Wales

Age-standardised rates[3] per million population for selected causes

Malignant neoplasms													
Prostate	Bladder	Leukaemia	Diabetes mellitus	Ischaemic heart disease	Cerebro vascular diseases	Pneumonia	Bronchitis, emphysema and other chronic obstructive pulmonary disease	Asthma	Gastric and duodenal ulcer	Diseases of the liver	Land transport accidents	Intentional self-harm and events of undetermined intent with inquest verdict 'Open'	Year and quarter
(C61)	(C67)	(C91–C95)	(E10–E14)	(I20–I25)	(I60–I69)	(J12–J18)	(J40–J44)	(J45–J46)	(K25–K27)	(K70–K76)	(V01–V89)	(X60–X84, Y10–Y34)	
													Males
198	124	74	82	3,801	1,541	920	944	21	107	41	209	124	1971
214	121	74	82	3,664	1,141	1,053	683	28	90	58	119	151	1981
304	121	77	131	2,984	940	391	606	31	73	76	125	160	1991
277	99	67	94	2,215	706	720	463	18	60	115	86	152	1998
272	93	67	94	2,095	673	770	474	18	64	119	86	151	1999
260	92	67	88	1,959	622	735	416	17	59	119	86	141	2000
274	93	70	94	1,872	690	388	403	16	55	139	86	134	2001
271	90	68	91	1,782	690	387	396	15	56	144	83	131	2002
272	87	71	91	1,700	661	407	411	14	53	157	84	129	2003
266	84	67	82	1,562	594	359	363	15	50	151	77	125	2004
255	80	67	79	1,466	553	351	367	12	46	156	75	118	2005
279	86	67	91	1,708	692	465	463	15	54	149	69	137	2004 March
258	82	63	80	1,538	571	332	338	13	49	144	90	133	June
260	88	70	74	1,418	519	278	293	17	44	145	79	127	Sept
267	81	66	85	1,584	594	361	360	14	52	166	71	103	Dec
264	85	67	93	1,673	644	498	489	14	55	167	75	132	2005 March
250	80	65	75	1,442	534	326	356	13	45	149	77	122	June
248	76	65	67	1,289	483	246	270	9	42	144	82	115	Sept
259	78	70	81	1,463	552	339	356	12	43	163	66	104	Dec
256	79	73	85	1,538	610	434	439	11	52	158	83	128	2006[3] March[p]
249	80	63	75	1,344	505	317	350	10	47	163	88	118	June[p]
239	82	66	66	1,200	451	240	270	11	41	157	75	111	Sept[p]
													Females
:	32	47	89	1,668	1,352	624	193	25	44	31	82	84	1971
:	35	47	66	1,601	1,012	740	155	30	57	43	41	81	1981
:	34	44	95	1,407	812	325	211	30	46	49	45	51	1991
:	34	43	74	1,347	724	585	224	27	46	49	35	48	1993
:	35	42	69	1,237	689	512	204	24	44	50	34	44	1994
:	33	41	73	1,194	690	568	229	24	42	55	30	47	1995
:	32	41	67	1,140	680	548	222	21	43	57	30	45	1996
:	31	43	66	1,074	651	574	227	23	42	61	29	45	1997
:	32	41	65	1,055	645	546	226	22	41	64	28	43	1998
:	30	45	65	986	629	591	241	22	39	67	28	45	1999
:	31	39	62	907	577	546	216	20	41	68	24	45	2000
:	29	41	62	878	620	307	220	19	39	77	23	40	2001
:	30	43	65	844	617	316	224	20	37	79	24	41	2002
:	30	39	66	811	606	337	244	20	36	81	24	41	2003
:	28	40	60	738	550	297	214	18	35	83	21	41	2004
:	28	39	57	686	519	298	224	17	32	81	22	38	2005
:	27	43	69	806	626	399	283	23	37	84	25	46	2004 March
:	30	39	54	720	530	254	184	16	33	80	21	42	June
:	28	39	55	674	496	227	167	14	32	80	19	42	Sept
:	28	39	63	750	550	307	221	18	37	86	20	36	Dec
:	30	43	65	806	605	453	320	24	36	88	26	40	2005 March
:	29	40	54	674	496	261	207	17	32	74	20	43	June
:	27	35	50	600	462	199	157	12	28	75	21	38	Sept
:	25	40	58	665	514	281	213	16	31	85	21	33	Dec
:	29	42	60	734	553	373	282	19	37	87	24	40	2006[3] March[p]
:	27	34	55	638	477	260	213	16	27	85	26	36	June[p]
:	29	34	50	560	426	186	161	13	27	85	20	40	Sept[p]

See notes opposite.

Report:

Conceptions in England and Wales, 2005

This report contains provisional estimated numbers and rates of conceptions for women usually resident in England and Wales in 2005.

Key Observations:

- The number of conceptions have fluctuated between 1994 and 2000 and have steadily increased since 2001. In 2005 there were an estimated 837 thousand conceptions in England and Wales, compared to 826 thousand in 2004, an increase of 1.3 per cent (Table A).
- Nearly four-fifths of these conceptions resulted in a maternity (Table A). This proportion has remained fairly stable over the past 12 years.
- Ninety three per cent of conceptions within marriage resulted in a maternity compared with just 65 per cent of conceptions outside marriage (Table A). The relative proportions of conceptions inside and outside marriage have been changing for some time. In 2005, 55 per cent of conceptions were outside marriage compared with 46 per cent in 1994.
- Conception rates for women aged 30 and over have increased significantly since 1990, particularly among the oldest age groups (35–39, 40 and over). Between 2004 and 2005, the largest increase in conception rates occurred within the 35–39 age group, rising from 51.0 conceptions per thousand women aged 35–39 to 52.8, an increase of 3 per cent (Table B).
- Conception rates for women aged under 20 fell in the early 1990s but rose between 1995 and 1998 before falling again from 1999. Between 2004 and 2005 the under 20 conception rate fell slightly from 60.3 to 59.8 conceptions per thousand women aged 15–19 (Figure 1 and Table B).

Table A All age, under 20 and under 16 conceptions (numbers and percentages): outcome by occurrence within/outside marriage

England and Wales — Residents

	Age of woman at conception[1]/year of conception											
	All ages				Under 20				Under 16			
	1994	1999	2004	2005	1994	1999	2004	2005	1994	1999	2004	2005
All conceptions	801.6	774.0	826.8	837.4	85.4	98.8	101.3	101.9	7.8	7.9	7.6	7.9
Base number (thousands)												
Percentage leading to:												
maternity	81	77	78	78	65	61	60	60	50	47	43	43
legal abortion	19	23	22	22	35	39	40	40	50	53	57	57
Conceptions inside marriage	435.9	373.5	372.7	375.5	7.0	6.4	5.5	5.0	:	:	:	:
Base number (thousands)												
Percentage leading to:												
maternity	92	91	93	93	95	93	93	93	:	:	:	:
legal abortion	8	9	7	7	5	7	7	7	:	:	:	:
Conceptions outside marriage	365.6	400.4	454.1	462.0	78.3	92.4	95.8	96.8	7.8	7.9	7.6	7.9
Base number (thousands)												
Percentage leading to:												
maternity outside marriage registered by mother alone	13	11	10	10	19	16	14	13	23	21	17	17
maternity outside marriage registered by both parents	46	48	50	51	40	40	42	43	26	26	25	26
maternity inside marriage	7	5	5	4	4	2	2	1	0	0	0	0
legal abortion	33	35	35	35	37	41	42	42	50	53	57	57

1. Conceptions leading to maternities or legal abortions – those which result in spontaneous miscarriage are not included.
Note: Percentages may not add to 100 because of rounding.

- The estimated number of conceptions to girls aged under 16 rose by nearly 4 per cent from 7,615 in 2004 to 7,917 in 2005 (Table B). Nearly three-quarters of those conceptions were to 15-year-old girls.

- The underage conception rate in 2005 was 7.8 conceptions per thousand girls aged 13–15 compared with 7.5 in 2004, an increase of 4 per cent (Table B). But overall the rate in this age group has been steadily declining since 1998 when it was 9.0 per thousand girls aged 13–15.

- In 2005, the estimated number of conceptions to women aged under 18 was similar to that in 2004, around 42 thousand. Of these 46.4 per cent led to a legal abortion, a proportion slightly higher than the 45.6 per cent in 2004 (Table B).

- In 2005, the under 18 conception rate for England and Wales was 41.3 conceptions per thousand women aged 15–17 compared with 41.7 per thousand in 2004, a fall of nearly 1 per cent (Table B). This is the lowest rate since 1995 when it was 41.9 per thousand women aged 15–17.

- Looking at conceptions by area of residence, the under 18 conception rate for women usually resident in England has also fallen by nearly 1 per cent from 41.5 conceptions per thousand women aged 15–17 in 2004 to 41.1 in 2005 (Table 1). Comparing regions, the highest under 18 conception rate in 2005 was in the North East of England, where there were 49.6 conceptions per thousand women aged 15–17. There were however, large variations in the rates within regions by health authorities particularly in the London region; South East London had the highest rate amongst health authorities in England, 57.2 per thousand.

Figure 1 Relative changes in age-specific conception rates, 1990–2005

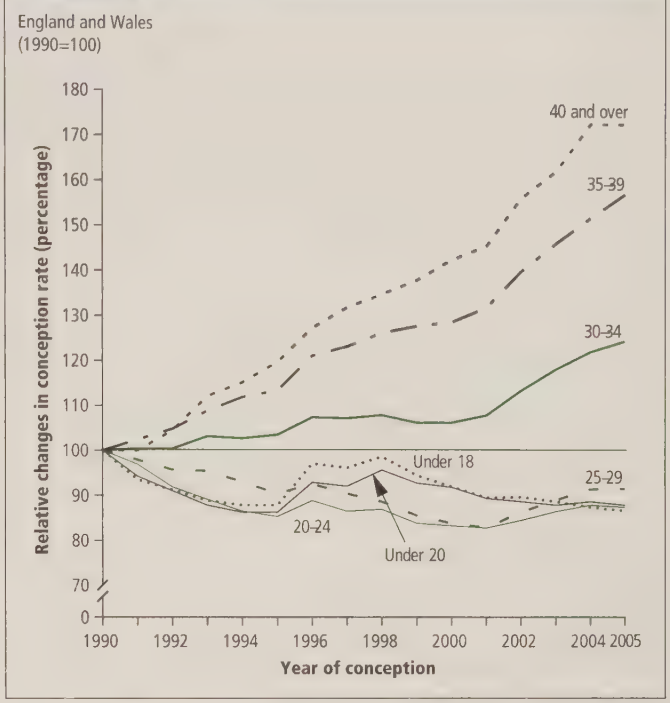


Table B Conceptions (numbers, rates and percentages leading to legal abortion) by age of woman at conception

England and Wales — Residents

	All conceptions (base numbers)		Percentage leading to legal abortion[1]		Conception rates per 1,000 women[2]	
	2004	2005	2004	2005	2004	2005
Under 14	337	334	62.0	58.4	1.0	1.0
14	1,754	1,829	63.0	63.8	5.2	5.3
15	5,524	5,754	55.0	54.8	16.5	17.0
Under 16	7,615	7,917	57.2	57.1	7.5	7.8
16	13,636	13,280	45.6	46.5	40.0	39.2
17	20,947	20,990	41.3	42.3	62.6	60.9
Under 18	42,198	42,187	45.6	46.4	41.7	41.3
18	27,373	27,913	37.8	37.5	82.5	82.0
19	31,691	31,788	34.7	34.9	94.3	93.5
Thousands						
Under 20	101.3	101.9	40.1	40.4	60.3	59.8
20–24	181.3	184.6	28.9	28.7	108.9	108.4
25–29	205.1	210.1	18.2	18.0	126.2	126.3
30–34	209.6	208.1	13.2	13.2	109.4	111.6
35–39	106.8	109.3	18.3	17.8	51.0	52.8
40 and over	22.8	23.4	33.0	33.0	11.4	11.4
All ages	826.8	837.4	22.4	22.3	75.3	75.7

1. Legal terminations under the 1967 Abortion Act.
2. Rates for women of all ages, under 14, under 16, under 18, under 20 and 40 and over are based on the population of women aged 15–44, 13, 13–15, 15–17, 15–19, and 40–44 respectively.

Explanatory Notes

Conceptions data combine information from registration of births and notifications of legal abortions occurring in England and Wales for women who are usually resident there.

Under arrangements made following implementation of the Abortion Act 1967, the Office for National Statistics and its predecessors processed and analysed the abortion notification forms (HSA4) sent to the Chief Medical Officers of England and Wales. From 1st April 2002, the Department of Health has taken over this work and the system has been redesigned to process the new abortion notification forms that were introduced from the 18th April 2002.

Conception statistics include pregnancies that result in:

- One or more live or still births (a maternity); or
- A legal abortion under the Abortion Act 1967 (an abortion).

They do not include miscarriages or illegal abortions.

Date of conception

The date of conception is estimated using recorded gestation for abortions and stillbirths, and assuming 38 weeks gestation for live births.

Age at conception

A woman's age at conception is calculated as the number of complete years between her date of birth and the date she conceived. In many cases her birthday will occur between conception and the birth or abortion; a woman may conceive, for example, at age 19 and give birth at age 20. The conception and birth may also occur in different calendar years. For these reasons the number of conceptions to teenage women in a given year, for example, does not match the number of maternities and abortions to teenagers occurring in that year.

Area of usual residence

Numbers and rates of conceptions are given by mother's usual area of residence based on boundaries as at 1 April 2006. The postcode of the woman's address at the time of the maternity or abortion was used to determine the health authority she was living in at the time of the conception. Direct comparisons with areal conceptions data published in previous years are not always possible because of boundary changes. The data for earlier years, which have been included, relate to the current boundaries.

Additional tables on conceptions to women aged under 16 and under 18 by area of usual residence, and all conceptions by marital status and outcome are available on the National Statistics website www.statistics.gov.uk

Table 1 **Conceptions (numbers and rates): by area of usual residence and age of woman, 2005**

England and Wales

Residents

Area	Age of woman at conception															
	All ages		Under 18		Under 20		20–24		25–29		30–34		35–39		40 and over	
	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates
England and Wales	**837.4**	**75.7**	**42.2**	**41.3**	**101.9**	**59.8**	**184.6**	**108.4**	**210.1**	**126.3**	**208.1**	**111.6**	**109.3**	**52.8**	**23.4**	**11.4**
England	797.1	76.1	39.7	41.1	95.8	59.7	174.7	108.6	200.2	126.4	199.1	112.4	104.8	53.4	22.5	11.6
Regional Offices and Health Authorities																
North East	**35.5**	**68.0**	**2.5**	**49.6**	**5.7**	**67.0**	**9.0**	**103.0**	**8.9**	**122.8**	**7.5**	**92.6**	**3.6**	**37.8**	**0.7**	**6.5**
County Durham and Tees Valley	16.6	71.1	1.2	52.4	2.8	70.7	4.4	117.0	4.2	133.5	3.4	92.6	1.6	37.3	0.3	6.2
Northumberland, Tyne & Wear	18.9	65.4	1.3	47.2	3.0	63.9	4.7	92.7	4.8	114.8	4.2	92.6	2.0	38.3	0.4	6.8
North West	**103.9**	**73.7**	**6.4**	**46.4**	**14.9**	**64.6**	**25.2**	**111.7**	**25.6**	**128.2**	**23.8**	**103.8**	**12.1**	**46.2**	**2.3**	**8.8**
Cheshire & Merseyside	34.0	70.4	2.0	41.6	4.8	59.8	7.8	101.9	8.1	124.8	8.1	105.1	4.4	48.7	0.9	9.0
Cumbria and Lancashire	26.6	70.4	1.7	43.3	3.9	60.3	6.5	112.9	6.6	132.3	6.1	98.9	3.0	41.5	0.6	8.3
Greater Manchester	43.3	78.8	2.7	53.1	6.3	72.2	10.9	119.1	10.9	128.3	9.6	106.1	4.7	47.4	0.9	9.0
Yorkshire and the Humber	**76.9**	**73.8**	**4.8**	**47.7**	**11.3**	**66.4**	**19.1**	**110.3**	**19.3**	**132.1**	**17.3**	**102.6**	**8.3**	**43.2**	**1.7**	**8.7**
North and East Yorkshire and Northern Lincolnshire	21.9	68.4	1.4	42.7	3.2	59.9	5.0	105.5	5.3	128.0	5.2	101.6	2.6	42.7	0.5	8.4
South Yorkshire	19.4	73.0	1.3	53.4	3.1	73.3	5.0	109.8	4.7	126.0	4.1	96.8	2.0	41.5	0.4	8.5
West Yorkshire	35.6	78.1	2.1	48.1	5.0	67.2	9.1	113.5	9.3	138.0	8.0	106.6	3.6	44.7	0.7	8.9
East Midlands	**61.4**	**70.6**	**3.4**	**40.2**	**8.0**	**57.6**	**13.9**	**102.9**	**15.4**	**129.7**	**14.9**	**104.7**	**7.5**	**45.1**	**1.5**	**9.3**
Leicestershire, Northamptonshire and Rutland	25.0	75.4	1.3	39.1	2.9	54.7	5.5	106.0	6.6	143.8	6.3	115.1	3.0	47.9	0.7	10.5
Trent	36.4	67.7	2.1	40.9	5.1	59.3	8.4	100.9	8.8	121.0	8.6	98.1	4.5	43.4	0.9	8.6
West Midlands	**85.5**	**78.6**	**4.9**	**45.3**	**11.7**	**65.8**	**20.8**	**122.0**	**21.6**	**137.1**	**19.3**	**108.5**	**9.9**	**48.8**	**2.2**	**10.7**
Birmingham and the Black Country	42.5	87.5	2.5	52.0	6.1	76.1	11.3	135.4	10.9	146.0	8.8	112.1	4.5	52.1	1.0	11.8
West Midlands South	22.4	72.2	1.1	37.5	2.7	55.1	4.7	103.9	5.7	125.8	5.6	110.4	3.0	49.6	0.7	11.0
Shropshire and Staffordshire	20.5	70.5	1.3	42.5	2.9	59.7	4.8	115.2	5.0	132.9	4.9	100.7	2.5	43.1	0.5	8.9
East	**80.4**	**73.2**	**3.4**	**32.7**	**8.3**	**48.8**	**16.1**	**104.5**	**20.7**	**130.7**	**21.8**	**116.0**	**11.1**	**52.0**	**2.3**	**10.8**
Bedfordshire and Hertfordshire	26.3	77.5	0.9	28.2	2.3	45.7	4.9	106.2	6.7	134.2	7.6	127.1	4.0	59.6	0.8	12.3
Essex	24.2	75.0	1.1	33.4	2.6	50.7	4.8	110.1	6.3	136.1	6.6	120.0	3.3	52.3	0.7	10.5
Norfolk, Suffolk and Cambridgeshire	29.9	68.6	1.5	35.7	3.4	49.8	6.5	99.4	7.7	123.9	7.7	104.0	3.8	45.7	0.8	9.7
London	**166.2**	**89.8**	**5.8**	**44.6**	**15.2**	**68.7**	**34.1**	**119.5**	**43.2**	**118.7**	**43.4**	**122.8**	**24.4**	**74.0**	**5.8**	**19.7**
North Central London	26.9	86.0	0.9	44.7	2.5	68.5	5.5	109.6	6.7	105.1	7.0	117.9	4.2	76.7	1.1	21.5
North East London	38.6	104.2	1.3	44.9	3.8	75.5	9.4	157.6	11.0	158.1	8.7	126.2	4.6	71.9	1.1	18.4
North West London	39.3	83.8	1.1	37.0	3.1	56.3	7.7	99.6	10.4	108.5	10.6	118.7	6.0	74.3	1.5	20.8
South East London	35.3	96.0	1.5	57.2	3.8	85.0	7.2	138.8	9.0	131.0	9.0	129.0	5.1	73.2	1.2	19.4
South West London	26.1	79.1	0.9	39.2	2.1	58.1	4.2	92.6	6.1	92.6	8.1	122.6	4.5	74.4	1.0	18.3
South East	**121.3**	**74.0**	**5.3**	**34.2**	**12.8**	**50.6**	**22.9**	**96.8**	**29.4**	**124.4**	**33.6**	**121.9**	**18.6**	**58.7**	**4.0**	**12.5**
Hampshire and Isle of Wight	25.3	69.4	1.2	36.6	3.0	53.2	5.3	92.0	6.2	119.9	6.5	110.0	3.5	51.0	0.7	10.3
Kent and Medway	24.4	76.0	1.3	39.1	3.1	58.4	5.3	117.9	6.0	135.1	6.1	114.7	3.2	51.0	0.7	11.0
Surrey and Sussex	36.5	72.9	1.5	31.8	3.5	46.0	5.9	87.2	8.4	118.7	10.9	129.6	6.5	64.5	1.4	13.5
Thames Valley	35.1	77.4	1.3	31.3	3.2	47.4	6.4	96.5	8.8	126.5	10.1	127.4	5.5	63.6	1.2	14.2
South West	**66.1**	**68.9**	**3.3**	**34.2**	**7.7**	**49.4**	**13.4**	**96.0**	**16.0**	**123.4**	**17.6**	**112.3**	**9.3**	**50.0**	**2.0**	**10.7**
Avon, Gloucestershire and Wiltshire	31.7	70.6	1.4	33.9	3.5	49.5	6.0	89.8	7.7	119.0	8.9	118.5	4.6	53.3	1.0	11.9
Dorset and Somerset	14.7	68.0	0.7	31.8	1.7	46.0	3.1	109.0	3.6	128.4	3.8	109.4	2.0	47.3	0.4	10.0
South West Peninsula	19.7	67.0	1.1	36.6	2.6	51.9	4.3	96.9	4.7	127.5	4.8	104.5	2.7	47.0	0.6	9.6

Table 1 continued **Conceptions (numbers and rates): by area of usual residence and age of woman, 2005**

England and Wales — Residents

Area	Age of woman at conception															
	All ages		Under 18		Under 20		20–24		25–29		30–34		35–39		40 and over	
	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates	Number (000s)	Rates
Wales	**40.3**	**69.6**	**2.5**	**43.3**	**6.1**	**62.6**	**9.9**	**105.7**	**10.0**	**124.6**	**9.0**	**97.3**	**4.5**	**42.1**	**0.9**	**8.5**
Anglesey	0.8	68.2	0.0	31.1	0.1	48.4	0.2	126.6	0.2	128.6	0.2	95.4	0.1	41.7	0.0	5.0
Gwynedd	1.6	72.3	0.1	39.9	0.2	62.0	0.4	91.3	0.4	123.4	0.4	107.3	0.2	53.5	0.0	11.8
Conwy	1.4	75.7	0.1	49.4	0.2	71.6	0.3	133.7	0.3	137.3	0.3	112.4	0.2	44.8	0.0	9.3
Denbighshire	1.2	70.8	0.1	44.7	0.2	68.4	0.3	136.3	0.3	118.5	0.3	94.6	0.2	45.4	0.0	8.8
Flintshire	2.0	69.3	0.1	40.5	0.3	63.0	0.4	113.5	0.5	118.8	0.5	101.1	0.3	44.1	0.1	9.6
Wrexham	2.1	80.0	0.2	62.7	0.3	84.7	0.5	124.3	0.5	136.1	0.4	100.4	0.3	50.2	0.0	7.9
Powys	1.4	65.0	0.1	27.0	0.1	35.3	0.3	107.7	0.4	138.0	0.4	107.1	0.2	46.4	0.1	11.0
Ceredigion	0.7	46.7	0.0	33.0	0.1	32.6	0.2	39.7	0.2	102.0	0.2	84.6	0.1	40.2	0.0	12.1
Pembrokeshire	1.5	74.2	0.1	38.2	0.2	62.2	0.4	141.8	0.4	126.8	0.3	103.0	0.2	50.4	0.0	8.3
Carmarthenshire	2.2	66.6	0.1	35.2	0.3	54.0	0.5	106.9	0.6	126.2	0.5	96.6	0.3	42.8	0.1	8.9
Swansea	3.0	66.5	0.2	38.3	0.4	52.9	0.8	86.3	0.8	133.7	0.6	93.6	0.3	41.7	0.1	7.8
Neath Port Talbot	1.8	69.4	0.1	46.3	0.3	64.1	0.5	127.4	0.5	137.5	0.4	89.9	0.2	33.6	0.0	5.8
Bridgend	1.8	71.2	0.1	46.7	0.3	70.2	0.4	129.9	0.5	141.9	0.4	91.9	0.2	33.3	0.0	6.5
Vale of Glamorgan	1.6	67.1	0.1	33.9	0.2	53.4	0.3	107.9	0.4	118.1	0.4	102.4	0.2	47.6	0.1	10.7
Cardiff	4.8	62.9	0.2	39.3	0.6	53.1	1.2	66.6	1.2	94.5	1.1	99.8	0.6	49.9	0.1	9.6
Rhondda Cynon Taff	3.5	73.4	0.2	52.7	0.6	78.4	0.9	125.5	0.9	129.9	0.7	89.2	0.3	32.1	0.1	6.3
Merthyr Tydfil	0.8	72.2	0.1	52.6	0.1	77.1	0.2	142.9	0.2	144.5	0.1	82.4	0.1	23.6	0.0	7.8
Caerphilly	2.6	74.8	0.2	52.5	0.4	79.3	0.7	140.2	0.6	126.0	0.5	93.1	0.2	33.7	0.0	5.7
Blaenau Gwent	1.0	70.4	0.1	49.3	0.2	68.7	0.3	141.4	0.2	139.1	0.2	85.5	0.1	28.9	0.0	4.2
Torfaen	1.3	76.5	0.1	59.8	0.3	83.1	0.4	149.3	0.3	136.4	0.2	82.3	0.1	42.7	0.0	6.8
Monmouthshire	1.0	68.1	0.1	29.6	0.1	42.5	0.2	108.9	0.2	131.4	0.3	126.6	0.2	49.2	0.1	16.2
Newport	2.2	76.4	0.1	46.6	0.4	74.3	0.5	129.0	0.5	140.4	0.5	100.9	0.2	41.3	0.0	8.9

Notes: 1. Boundaries are as at 1 April 2006.
2. The rates for women of all ages, under 18, under 20 and 40 and over are expressed per 1,000 women aged 15–44, 15–17, 15–19 and 40–44 respectively.

Report:

Health expectancies in the United Kingdom, 2003

Introduction

This report presents the latest figures on male and female health expectancy, at birth and at age 65, for the UK and its four constituent countries in 2003. While life expectancy provides an estimate of average expected life-span, health expectancy partitions total life expectancy into years free from health-related problems and years lived in ill-health.

ONS produces two measures of health expectancy: healthy life expectancy (HLE), defined as expected years of life in 'good' or 'fairly good' health, and disability-free life expectancy (DFLE), defined as expected years of life free from limiting long-standing illness or disability. The methods and the data sources used to calculate heath expectancies are reported in detail in the article 'Review of sources and methods to monitor healthy life expectancy' published in *Health Statistics Quarterly* 26.[1]

Table 1 shows the 2003 figures for life expectancy, HLE and DFLE at birth and at age 65 by sex for the UK and each constituent country along with the corresponding 95 per cent confidence intervals.

Healthy life expectancy, 2003

In the UK in 2003, on average males could expect to live in good or fairly good health (HLE) for 67.6 years at birth and 12.3 years at age 65. For females, the equivalent figures were 70.1 years and 14.3 years, respectively.

Of the four constituent countries of the UK, England had the highest HLE at birth and at age 65 for both sexes. For males, this was significantly higher than in the other three countries Wales, Scotland and Northern Ireland, both at birth and at age 65. For females, differences between countries were not as high: HLE at birth in England was significantly higher than in Wales and in Northern Ireland, and at age 65 was only significantly higher than Northern Ireland.

HLE estimates for Scotland were the second highest in the UK. Scotland also had the lowest life expectancy of all the countries in the UK. As a consequence, it is estimated that residents of Scotland spend the least number of years in 'not good' health compared to other UK countries.

For males, the lowest estimate of HLE was for Wales. HLE at birth for males in Wales was 65.5 years, 2.1 years lower than the estimate for the UK, and at age 65 was 10.9 years, 1.5 years lower than for the UK.

The pattern for females was different with the lowest HLE estimate being for Northern Ireland. HLE at birth for females in Northern Ireland was 67.9 years, 2.2 years lower than the UK estimate; at age 65 was 13.2 years, 1.1 years lower than the UK estimate.

Disability-free life expectancy, 2003

In the UK in 2003, on average males at birth could expect to live 61.5 years free from limiting long-standing illness or a disability (DFLE), and 9.4 years at age 65. For females the equivalent DFLE figures were 63.3 years at birth, and 10.4 years at age 65.

The variation between countries of the UK in DFLE was similar to the variation in HLE. England had significantly higher estimates of DFLE than Wales and Northern Ireland for each of the four age by sex comparisons presented.

DFLE estimates for Scotland were the second highest in the UK. As Scotland had the lowest life expectancy for both sexes, residents of Scotland could expect to live the least number of years with a disability compared to other UK countries.

For males, Wales had the lowest DFLE of all the constituent countries: 58.8 years at birth and 7.8 years at age 65. In contrast, for females, Northern Ireland had the lowest DFLE estimates: 60.1 years at birth and 8.6 years at age 65.

Table 1 Life expectancy (LE), healthy life expectancy (HLE) and disability-free life expectancy (DFLE), at birth and age 65: by country and sex, 2003

	Country	Life expectancy	Healthy life expectancy		Disability-free life expectancy	
		Years	Years	95% Confidence Interval	Years	95% Confidence Interval
At birth						
Males	United Kingdom	76.3	67.6	(67.3,67.8)	61.5	(61.2,61.7)
	Great Britain	76.3	67.6	(67.4,67.9)	61.5	(61.2,61.8)
	England	76.6	67.9	(67.7,68.2)	61.7	(61.4,62.1)
	Wales	76.0	65.5*	(64.2,66.8)	58.8*	(57.4,60.3)
	Scotland	73.8	66.1*	(65.3,67.0)	61.3	(60.3,62.3)
	Northern Ireland	75.8	65.7*	(65.2,66.3)	59.0*	(58.4,59.6)
Females	United Kingdom	80.7	70.1	(69.8,70.3)	63.3	(63.0,63.6)
	Great Britain	80.7	70.1	(69.8,70.4)	63.4	(63.0,63.7)
	England	80.9	70.2	(69.9,70.6)	63.6	(63.2,63.9)
	Wales	80.4	68.7*	(67.4,70.0)	61.6*	(60.2,63.0)
	Scotland	79.1	69.7	(68.8,70.6)	62.9	(61.8,63.9)
	Northern Ireland	80.6	67.9*	(67.3,68.5)	60.1*	(59.5,60.8)
At age 65						
Males	United Kingdom	16.4	12.3	(12.1,12.5)	9.4	(9.2,9.6)
	Great Britain	16.4	12.3	(12.1,12.5)	9.4	(9.2,9.6)
	England	16.5	12.5	(12.3,12.7)	9.5	(9.3,9.8)
	Wales	16.1	10.9*	(10.0,11.8)	7.8*	(6.9,8.8)
	Scotland	15.2	11.7*	(11.1,12.4)	9.2	(8.5,10.0)
	Northern Ireland	16.1	11.9*	(11.4,12.3)	8.2*	(7.8,8.7)
Females	United Kingdom	19.3	14.3	(14.1,14.5)	10.4	(10.2,10.6)
	Great Britain	19.3	14.3	(14.1,14.5)	10.5	(10.2,10.7)
	England	19.4	14.4	(14.2,14.6)	10.6	(10.3,10.8)
	Wales	19.0	13.5	(12.7,14.4)	9.4*	(8.4,10.3)
	Scotland	18.2	13.8	(13.2,14.4)	10.3	(9.5,11.0)
	Northern Ireland	19.1	13.2*	(12.8,13.6)	8.6*	(8.2,9.1)

Source: Office for National Statistics; Government Actuary's Department

* Significantly different from England at the 95% level.

Trends in health expectancies

The 2003 health expectancies pattern by sex, age and country noted above is very similar to the 2002 health expectancies pattern published last year.[2] The year-on-year variations between the 2003 and 2002 patterns are partly due to the sampling variability of the estimates arising from the use of survey data to estimate proportion of life spent in good/fairly good health or without disability. It can generally be expected that noticeable changes in life expectancy and health expectancies take place over several years rather than year-on-year. Analysis of annual health expectancies changes is further complicated by the fact that health expectancies for consecutive years are three-year moving averages based upon overlapping rounds of survey data (eg. health expectancies for 2003 based on the GHS data for 2002, 2003 and 2004 combined). Hence, only estimates that are three years apart and are based on non-overlapping or independent samples (eg. 2001 versus 2004) can be tested for significance differences.

Website report and results

The results in this report can also be found on the National Statistics website at: www.statistics.gov.uk/StatBase/Product.asp?vlnk=12964

Figures on the National Statistics website include estimates of HLE and DFLE for the UK, Great Britain, England, Scotland, Wales and Northern Ireland from 2001 to 2003. For Great Britain and England, long-term health expectancies trend data is also available for the period 1981–2003. All estimates (with 95 per cent confidence intervals) are presented along with the corresponding life expectancy figures.[3,4]

References

1. Breakwell C and Bajekal M (2005) Review of sources and methods to monitor Healthy Life Expectancy. *Health Statistics Quarterly* **26**, 17–22.
2. Office for National Statistics (2006) Report: Health expectancies in the UK, 2002. *Health Statistics Quarterly* **29**, 59–62.
3. All life expectancy figures are available to download from the Government Actuary's Department website at: www.gad.gov.uk
4. Carol Jagger (1999) *Health Expectancy Calculation by the Sullivan Method: A Practical Guide.* NUPRI Research Paper Series No 68.

Report:

Deaths involving *Clostridium difficile*: England and Wales, 2001–2005

Introduction

This is the second report on deaths in England and Wales where *Clostridium difficile* was mentioned as a contributory factor. This report covers the period 2001 to 2005. Data for 2005 appear for the first time in this report. Figures for earlier years were published in *Health Statistics Quarterly* 30.[1]

Background

This report examines trends in deaths that involved *C. difficile* as a contributory factor between 2001 and 2005. *C. difficile* is a spore forming bacterium found naturally in the gut of a small proportion (around 3 per cent)[2] of the healthy adult population. *C. difficile* can cause diarrhoea, ranging from a mild disturbance to very severe illness with ulceration and bleeding from the colon (colitis), and perforation of the intestine leading to peritonitis, which can be fatal.[3] *C. difficile* disease occurs when normal, healthy intestinal bacteria are subdued by the use of antibiotics. This allows *C. difficile* to flourish in the gut and produce a toxin that causes diarrhoea.

Box One explains the terms used in this report.

C. difficile was first described in the 1930s,[4] but it was not identified as the cause of pseudomembranous colitis following antibiotic therapy until the late 1970s.[5-8] Patients who have been treated with broad spectrum antibiotics (those affecting a wide range of bacteria, including intestinal bacteria) are at the greatest risk of *C. difficile* associated disease. In addition to antibiotic exposure, the risk of contracting *C. difficile* is also raised for elderly patients, those who have recently had gastrointestinal surgery, those who have a long length of stay in healthcare settings, and those who have a serious underlying illness or a condition that compromises their immune system.[9, 10] Patients are also at risk of developing *C. difficile* disease when there are outbreaks in hospitals. Poor infection control is also an important risk factor.

A recent Department of Health report addresses actions that should be taken to reduce levels of healthcare associated infections.[11] A report on *C. difficile* and actions to reduce the chances of outbreaks was released by the Health Protection Agency (HPA) in February 2003.[12] In January 2004, the HPA began to carry out a mandatory reporting scheme for all cases of *C. difficile* in persons 65 years and over.[13] Results from the surveillance scheme are published in the *Mandatory Surveillance of Healthcare Associated Infection Report, 2006* on the HPA website.[14]

The number of deaths due to *C. difficile* is difficult to estimate. Trends in mortality are normally monitored using the underlying cause of death (the disease which initiated the train of events leading directly to death). *C. difficile* and other infections that are often hospital-acquired such as MRSA, are often not the underlying cause of death. Those who die with *C. difficile* are usually patients who were already very ill and it may be their existing illness, rather than *C. difficile*, which is designated as the underlying cause of death. There is therefore an interest in the number of deaths where *C. difficile* contributed to the death – only conditions which contribute directly to the death should be recorded on the medical certificate of cause of death (death certificate). Results presented in this report identify deaths where the underlying cause was *C. difficile* and those where it was mentioned on the death certificate as a contributory factor.

Methods

Identification of deaths involving Clostridium difficile

All deaths are coded by the Office for National Statistics (ONS) according to the International Classification of Diseases (ICD) supplied by the World Health Organization. In the Tenth Revision (ICD-10), used by ONS from 2001 onwards, there is a specific code (A04.7) for 'Enterocolitis due to *Clostridium difficile*'. While this code identifies the vast majority of deaths involving *C. difficile*, a small number of *C. difficile*-related deaths are not captured by this code alone. Since 1993 ONS has stored the text of death certificates on a database in addition to all the ICD codes relating to causes identified on the death certificate. This means that it is possible to identify records where *C. difficile* is mentioned, but is not coded under the specific ICD-10 code.

In addition to extracting all deaths related to the specific A04.7 ICD-10 code, deaths mentioning a number of other ICD categories to which diseases including *C. difficile* could be coded were also extracted. The text of these records was then searched manually for mentions of *Clostridium difficile*, *C. difficile* or pseudomembranous colitis. The ICD-10 codes used to select deaths to search manually are shown in Table 1. ONS used ICD-10 coded data from 2001 onwards for this report.

Since 1986 ONS has used the internationally recommended death certificate for neonatal deaths. This means that these deaths cannot be assigned an underlying cause of death.[15] However, as the data for this report were based on all mentions of *C. difficile* or pseudomembranous

colitis, neonates have been included. Neonatal deaths were extracted in the same way as described above for post-neonatal deaths.

Deaths with an underlying cause of death of *C. difficile* were identified by selecting those deaths with a mention of *C. difficile* or pseudomembranous colitis that also had one of the underlying causes of death noted in Table 1.

Derivation of place of death categories

The place of death categories used in this analysis have been derived from three items of information recorded by ONS (Table 2). First, the communal establishment code distinguishes between deaths in communal establishments (which are given a code specific to the particular institution) and those at home or occurring elsewhere. Second, the establishment type code classifies communal establishments into different types (e.g. hospital, hospice, local authority residential home). Lastly, the NHS Indicator code shows whether the establishment was NHS or non-NHS funded.

Methods of analysis

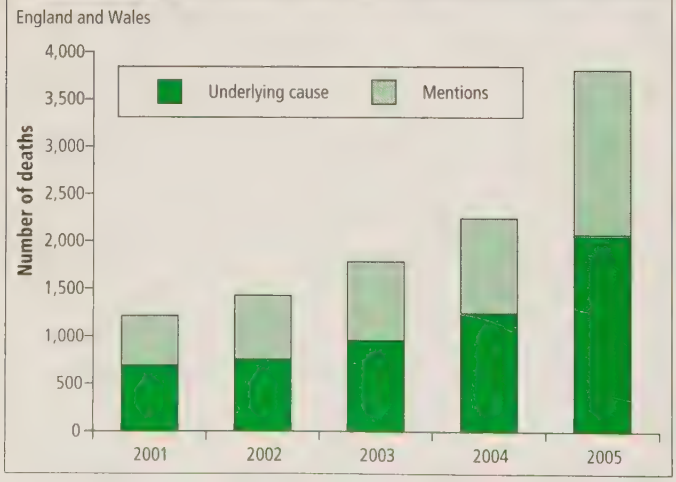
This report presents the number of *C. difficile* related deaths by sex, age and place of death. Both age-specific and age-standardised death rates for *C. difficile* are presented in this report. Age-standardised rates are explained in Box One.

Table 1 Specific and non-specific ICD-10 codes related to *Clostridium difficile*

Specific Codes[1]	Non-specific codes[1]
A04.7 (Enterocolitis due to *Clostridium difficile*)	A05.8 (Other specified bacterial food borne intoxications)
	A41.4 (Septicaemia due to anaerobes (Excludes: gas gangrene) A48.0 (Gas gangrene: Clostridial; cellulites, myoncrosis) A49.8 (Other bacterial infections of unspecified site) P36.5 (Sepsis of newborn due to anaerobes)

1. Codes used to identify deaths where *C. difficile* was the underlying cause of death (on deaths where *C. difficile* was mentioned): A04.7, A09, A41.4, and A49.8.

Figure 1 Number of death certificates mentioning *Clostridium difficile*, by whether it was the underlying cause of deaths, 2001–2005



Results

Number of deaths where *Clostridium difficile* contributed to the death or was the underlying cause of death

The number of deaths mentioning *C. difficile* increased each year in England and Wales between 2001 and 2005 (Table 3). Figure 1 shows the increasing number of deaths where *C. difficile* was mentioned since 2001. Mentions of *C. difficile* on death certificates increased from 1,214 in 2001 to 3,807 in 2005. Overall the number of deaths with a mention of C. difficile was 3.1 times higher in 2005 than it was in 2001. Among deaths with a mention of *C. difficile,* the percentage for which it was the underlying cause was similar (around 55 per cent) in each year (Table 3).

Mortality rates for all deaths mentioning *Clostridium difficile*

Age-standardised rates for deaths involving *C. difficile* amongst males in England and Wales have increased by 2.9 times since 2001, from 13.1 to 37.6 per million population. Among females, rates have more than tripled from 12.8 per million to 38.9 per million population (Table 4). Rates in Wales are lower than in England in each year excluding 2002. Overall, rates for deaths involving *C. difficile* were very similar for both males and females in each year (Figure 2).

Most of the deaths involving *C. difficile* occurred among people aged 65 and over. Mortality rates in specific age groups for England and Wales are shown in Table 5. In the 85 and over age group, there were 995 and 999 deaths per million population for males and females respectively in the period 2001 to 2005. This compares with 0.1 and 0.2 deaths per million population, for males and females respectively, in the under 45 age group (Table 5).

Place of death

Death certificates rarely specify the place where an infection was acquired. However, the place of death is recorded. Between 2001 and 2005, deaths involving *C. difficile* made up 0.40 per cent of all deaths in England and Wales. Among deaths that occurred in NHS general hospitals and NHS nursing homes, deaths involving *C. difficile* made up 0.66 per cent and 0.55 per cent of the total in these institutions respectively.

Most deaths in England and Wales occur in hospital (56 per cent of all deaths between 2001 and 2005 occurred in NHS general hospitals). We would therefore expect the majority of *C. difficile* deaths to also occur in hospital. Many deaths in hospital will have been to patients who were admitted because they were already seriously ill with another condition. In England and Wales, over the period 2001 to 2005, 92 per cent of deaths that mentioned *C. difficile* occurred in NHS general hospitals.

Figure 2 Age-standardised mortality rates for *Clostridium difficile* by sex, 2001–2005

Table 2 **Derivation of Place of Death Classification**

Place of death classification	Communal Establishment	Establishment type	NHS Indicator
Own home	Home	N/A	N/A
NHS general hospital	Communal Establishment Code	General hospital or Multi-function site	NHS
Non-NHS general hospital		General hospital or Multi-function site	Non-NHS
Hospice		Hospice	
NHS nursing home		Homes for the chronic sick or Medical nursing home	NHS
Non-NHS nursing home		Homes for the chronic sick, Medical nursing home, Private nursing home or Private nursing home (aged)	Non-NHS
Private residential home		Residential home (private)	Non-NHS
Local Authority residential home		Residential home (local authority)	NHS
Other places	Elsewhere	All other codes	N/A

Table 3 **Number of death certificates with *Clostridium difficile* mentioned and as the underlying cause, 2001–2005**

England and Wales

	2001	2002	2003	2004	2005	% change 2001 to 2005
England and Wales[1]						
Certificates mentioning *C.Difficile*	1,214	1,428	1,788	2,247	3,807	*214*
Certificates where *C.Difficile* was the underlying cause of death	691	756	958	1,245	2,074	*200*
Percentage of mentions selected as underlying cause	57	53	54	55	54	
England						
Certificates mentioning *C.Difficile*	1,150	1,338	1,702	2,155	3,697	*221*
Certificates where *C.Difficile* was the underlying cause of death	661	709	912	1,187	2,008	*204*
Percentage of mentions selected as underlying cause	57	53	54	55	54	
Wales						
Certificates mentioning *C.Difficile*	63	88	85	88	105	*67*
Certificates where *C.Difficile* was the underlying cause of death	29	46	46	55	62	*114*
Percentage of mentions selected as underlying cause	46	52	54	63	59	

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.

Table 4 **Age-standardised mortality rates for *Clostridium difficile* by sex, 2001–2005**

England and Wales

Rates per million population

	2001	2002	2003	2004	2005	% change 2001 to 2005
England and Wales[1]						
Males	13.1	15.5	18.6	23.6	37.6	*186*
Females	12.8	15.1	18.8	23.4	38.9	*205*
England						
Males	13.2	15.3	18.8	23.9	38.9	*195*
Females	12.9	15.1	19.0	23.9	40.1	*211*
Wales						
Males	11.9	17.9	13.7	16.7	15.6	*32*
Females	10.6	15.1	15.9	16.2	19.7	*85*

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.

Table 5 Age-specific mortality rates for *Clostridium difficile*: by sex, 2001–2005

England and Wales

Rates per million population

Age group	England and Wales[1]		England		Wales	
	Males	Females	Males	Females	Males	Females
Under 45	0.1	0.2	0.1	0.2	0.0	0.7
45–54	1.9	2.3	1.9	2.3	1.1	2.0
55–64	7.7	8.7	7.6	9.0	7.9	3.3
65–74	48.4	46.4	49.9	46.6	23.7	42.5
75–84	263.6	268.0	270.7	274.4	154.7	163.9
85 and over	995.0	998.8	1005.1	1016.4	817.5	699.6

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.

Table 6 Number of deaths mentioning *Clostridium difficile*: by place of death, compared to all causes of death, 2001–2005

England and Wales

	All cause number of deaths	Number of deaths	Percentage of all *C. difficile* deaths	*C. difficile* as a percentage of all deaths in the establishment
England and Wales[1]				
Own home	481,793	76	0.7	0.02
NHS general hospital	1,471,296	9,680	92.3	0.66
Non-NHS general hospital	13,859	15	0.1	0.11
Hospice	115,672	21	0.2	0.02
NHS nursing home	13,556	74	0.7	0.55
Non-NHS nursing home	245,305	213	2.0	0.09
Private residential home	144,445	73	0.7	0.05
Local Authority residential home	37,311	24	0.2	0.06
Other places	104,150	308	2.9	0.30
Total	2,627,387	10,484	100.0	0.40
England				
Own home	450,337	75	0.7	0.02
NHS general hospital	1,370,292	9,278	92.4	0.68
Non-NHS general hospital	13,046	15	0.1	0.11
Hospice	112,061	20	0.2	0.02
NHS nursing home	13,384	73	0.7	0.55
Non-NHS nursing home	231,456	201	2.0	0.09
Private residential home	137,344	71	0.7	0.05
Local Authority residential home	35,059	24	0.2	0.07
Other places	94,306	285	2.8	0.30
Total	2,457,285	10,042	100.0	0.41
Wales				
Own home	31,384	1	0.2	0.00
NHS general hospital	97,122	390	90.9	0.40
Non-NHS general hospital	321	0	0.0	0.00
Hospice	3,472	1	0.2	0.03
NHS nursing home	165	1	0.2	0.61
Non-NHS nursing home	13,665	12	2.8	0.09
Private residential home	7,069	2	0.5	0.03
Local Authority residential home	2,247	0	0.0	0.00
Other places	8,599	22	5.1	0.26
Total	164,044	429	100.0	0.26

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.

Box one

Glossary of Terms

Clostridium difficile *(C. difficile):* is a spore forming bacterium which is present as one of the 'normal' bacteria in the gut of up to 3 per cent of healthy adults. It is much more common in babies – up to two-thirds of infants may have *C. difficile* in the gut, where it rarely causes problems. People over the age of 65 years are more susceptible to contracting infection.

Diarrhoea: Diarrhoea occurs when the lining of the small or large intestine is irritated. *C. difficile* toxins are a major cause of antibiotic-associated diarrhoea. This leads to increased water being passed in the stools. Acute diarrhoea is usually caused by a viral infection or a bacterial infection and affects almost everyone from time to time. It usually clears up in a couple of days and is not serious. However it can be serious in babies and the frail and elderly, because of the risk of dehydration.

Pseudomembranous colitis (PMC): is a complication of antibiotic therapy often caused by *C. difficile* infection. PMC causes severe inflammation in areas of the colon (large intestine). Almost any antibiotic can cause PMC by upsetting the balance of the bacteria in the gut and intestines.

Age-standardised rate: Directly age-standardised rates make allowances for differences in the age structure of the population, over time and between sexes. The age-standardised rate for a particular disease is that which would have occurred if the observed age-specific rates for the disease had applied in a given standard population. In this report we have used the **European Standard Population**. This is a hypothetical population standard, which is the same for both males and females allowing standardised rates to be compared over time, and between males and females.

Sources: Health Protection Agency/ NHS Direct Online/ Office for National Statistics

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Report:

Deaths involving MRSA: England and Wales, 2001–2005

Introduction

This is the third annual report on deaths in England and Wales where meticillin-resistant *Staphylococcus aureus* (MRSA) was reported as a contributory factor. This report includes data for the period 2001 to 2005. Data for 2005 are published for the first time in this report. Figures for earlier years were published in previous editions of *Health Statistics Quarterly*.[1 3]

Background

This report examines trends from 2001 to 2005 in deaths that involved meticillin-resistant *Staphylococcus aureus* (MRSA) as a contributory factor. *Staphylococcus aureus* is a type of common bacteria that may be resistant to meticillin and other antibiotics usually used to treat *S. aureus*. Box One explains the terms used in this report.

MRSA was first isolated in 1961, the same year that the antibiotic meticillin was first used. MRSA remained at low levels in the UK until 1992.[4] Since then both the number of invasive infections caused by MRSA and the proportion of all *S. aureus* infections that are meticillin resistant has been increasing.[5] Previous analysis of death certificates has found that MRSA is increasingly mentioned on death certificates in England and Wales.[1–3, 6] Mortality rates for deaths involving MRSA increased more than 15-fold during the period 1993 to 2002; this increase was thought unlikely to be due solely to an improvement in reporting.[1] Those who die with MRSA are often already very ill and vulnerable to infection. A recent Department of Health report addresses actions that should be taken to reduce levels of healthcare associated infections.[7]

The true number of deaths due to MRSA is difficult to estimate. Trends in mortality are normally monitored using the underlying cause of death (the disease which initiated the train of events leading directly to death). However MRSA, and other healthcare associated infections, are not often the underlying cause of death. Those who die with MRSA are usually patients who were already very ill and it is instead their existing illness, rather than MRSA, which is often designated as the underlying cause of death. There is therefore an interest in the number of deaths where MRSA contributed to the death – only conditions which contribute directly to the death should be recorded on the death certificate. Results presented in this report identify deaths where the underlying cause was MRSA and also where MRSA was not the underlying cause but was a contributory factor in the death.

Method

All deaths are coded by the Office for National Statistics (ONS) according to the International Classification of Diseases (ICD) supplied by the World Heath Organization. There are currently no codes in the ICD for antibiotic resistance. However, since 1993 ONS has stored the text of death certificates on a database, along with all the ICD coding relating to causes identified on the death certificate. This means that it is possible to identify diseases which do not have their own specific ICD codes, such as MRSA, by manually searching the text of the death certificate.

Identification of Staphylococcus aureus and MRSA

The codes used to select deaths to search manually were as used in previous analyses.[1–3, 6] Initially all deaths which had a code which specifically related to *Staphylococcus aureus* mentioned on the death certificate were extracted from the database. The text of their death certificates was then manually searched to identify MRSA. The codes used to identify these deaths are given in Table 1.

In addition, all deaths which had non-specific codes, i.e. one which could include an *S. aureus* infection but could also include other infections, mentioned anywhere on the death certificate were extracted. They were then manually searched to identify both *S. aureus* and MRSA. The codes used to identify these deaths are given in Table 2.

Since 1986 ONS has used the internationally recommended death certificate for neonatal deaths. This means that these deaths cannot be assigned an underlying cause of death.[8] However, as the data were based on all mentions of *S. aureus* and MRSA, neonates have been included. Neonatal deaths were extracted in the same way as described above for post-neonatal deaths.

Table 1 Codes specifically relating to *S.aureus* infection, ICD-10

Code	Description
A05.0	Foodborne staphylococcal intoxication
A41.0–A41.2	Septicaemia due to *Staphylococcus aureus* / other specified staphylococcus / unspecified staphylococcus
A49.0	Staphylococcal infection, unspecified
B95.6– B95.8	*Staphylococcus aureus* /other staphylococcus / unspecified staphylococcus as the cause of diseases classified to other chapters
G00.3	Staphylococcal meningitis
J15.2	Pneumonia due to staphylococcus
L00	Staphylococcal scalded skin syndrome
M00.0	Staphylococcal arthritis and polyarthritis
P23.2	Congenital pneumonia due to staphylococcus
P36.2	Sepsis of newborn due to staphylococcus aureus

Deaths with an underlying cause of *S. aureus* were identified by selecting those deaths with a mention of *S. aureus* that also had one of the causes of death listed in Table 1 or Table 2 as the underlying cause. The same procedure was followed for the identification of those deaths with MRSA as the underlying cause. As in both previous MRSA reports,[2,3] the code A41.9 (septicaemia, unspecified) was used to select the underlying cause of death. This is because this code is sometimes selected as the underlying cause of death when MRSA septicaemia is mentioned on the death certificate.

Derivation of place of death categories

The place of death categories used in this analysis have been derived from three items of information recorded by ONS (Table 3). First, the communal establishment code distinguishes between deaths in communal establishments (which are given a code specific to the particular institution) and those at home or occurring elsewhere. Second, the establishment type code classifies communal establishments into different types (e.g. hospital, hospice, local authority residential home). Lastly, the NHS Indicator code shows whether the establishment was NHS or non-NHS funded.

Results

Number of deaths where *Staphylococcus aureus* or MRSA contributed to the death or was the underlying cause of death

The number of death certificates mentioning *Staphylococcus aureus* infection increased each year from 2001 to 2005 in England and Wales from 1,211 to 2,083 (Table 4). Each year there was an increase in the percentage of these deaths where MRSA was specified. In 2001, 61 per cent of deaths mentioning *S. aureus* specified meticillin resistance. By 2005 this had risen to 78 per cent. The number of deaths mentioning MRSA increased from 734 to 1,629. Figure 1 shows that it was the increase in the number of death certificates specifying MRSA that accounted for most of the increase in deaths where *S. aureus* was mentioned. The number of deaths which involved *S. aureus* that did not specify meticillin resistance was fairly constant between 2001 and 2005.

Between 2004 and 2005 mentions of MRSA on death certificates increased by 39 per cent (Table 4). However, the Health Protection Agency's mandatory MRSA surveillance scheme shows a 2 per cent decrease in laboratory reports between April 2005 and March 2006 compared to the same period in 2004/2005.[9] This indicates that some of the increase in mentions of MRSA on death certificates may be due to improved levels of reporting on death certificates, possibly brought about by the continued high public profile of the disease.

Table 2 Codes related to infection, but not specifically *S.aureus*, ICD-10

Code	Description
A04.8	Other specified bacterial intestinal infections
A38	Scarlet fever
A48.3	Toxic shock syndrome
G06.1	Intraspinal abscess and granuloma
G04.2	Bacterial meningoencephalitis and meningomyelitis, not elsewhere classified
I30.1	Infective pericarditis
I38	Endocarditis, valve unspecified
J03.8	Acute tonsillitis due to other specified organisms
J86	Pyothorax
K12.2	Cellulitis and abscess of mouth
K14.0	Glossitis
L03	Cellulitis
L08.9	Local infection of skin and subcutaneous tissue, unspecified
M60.0	Infective myositis
M86	Osteomyelitis
M46.2	Osteomyelitis of vertebra
M71.1	Other infective bursitis
N39.0	Urinary tract infection, site not specified
T80.2	Infections following infusion, transfusion and therapeutic injection
T81.4	Infection following a procedure, not elsewhere classified
T82.6	Infection and inflammatory reaction due to cardiac valve prosthesis
T82.7	Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts
T83.5	Infection and inflammatory reaction due to prosthetic device, implant and graft in urinary system
T83.6	Infection and inflammatory reaction due to prosthetic device, implant and graft in genital tract
T84.5	Infection and inflammatory reaction due to internal joint prosthesis
T84.6	Infection and inflammatory reaction due to internal fixation device [any site]
T84.7	Infection and inflammatory reaction due to other internal orthopaedic prosthetic devices, implants and grafts
T85.7	Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts
T87.4	Infection of amputation stump
T88.0	Infection following immunization

The percentage of mentions of *S. aureus* or MRSA that were also selected as the underlying cause of death has remained at similar levels since 2001 (Table 4). Increases in the numbers of deaths where *S. aureus* or MRSA were selected as the underlying cause therefore reflects the increase in deaths where *S. aureus* or MRSA was mentioned as a contributing factor in the death.

Table 3 Derivation of Place of Death Classification

Place of death classification	Communal Establishment	Establishment type	NHS Indicator
Own home	Home	N/A	N/A
NHS general hospital	Communal Establishment Code	General hospital or Multi-function site	NHS
Non-NHS general hospital		General hospital or Multi-function site	Non-NHS
Hospice		Hospice	
NHS nursing home		Homes for the chronic sick or Medical nursing home	NHS
Non-NHS nursing home		Homes for the chronic sick, Medical nursing home, Private nursing home or Private nursing home (aged)	Non-NHS
Private residential home		Residential home (private)	Non-NHS
Local Authority residential home		Residential home (local authority)	NHS
Other places	Elsewhere	All other codes	N/A

Table 4 Number of death certificates with *Staphylococcus aureus* and MRSA mentioned and as the underlying cause, 2001–2005

England and Wales

	2001	2002	2003	2004	2005
England and Wales[1]					
Mentions					
All *Staphylococcus aureus*	1,211	1,221	1,403	1,623	2,083
MRSA	734	800	955	1,168	1,629
Percentage of *S.aureus* mentions that were MRSA	61	66	68	72	78
Underlying cause[2]					
All *Staphylococcus aureus*	436	410	493	549	641
MRSA	254	248	321	360	467
Percentage of mentions selected as underlying cause					
All *Staphylococcus aureus*	36	34	35	34	31
MRSA	35	31	34	31	29
England					
Mentions					
All *Staphylococcus aureus*	1,137	1,145	1,310	1,531	1,940
MRSA	681	742	890	1,092	1,512
Percentage of *S.aureus* mentions that were MRSA	60	65	68	71	78
Underlying cause[2]					
All *Staphylococcus aureus*	414	388	462	515	593
MRSA	240	230	300	334	433
Percentage of mentions selected as underlying cause					
All *Staphylococcus aureus*	36	34	35	34	31
MRSA	35	31	34	31	29
Wales					
Mentions					
All *Staphylococcus aureus*	72	75	91	91	138
MRSA	53	58	64	75	113
Percentage of *S.aureus* mentions that were MRSA	74	77	70	82	82
Underlying cause[2]					
All *Staphylococcus aureus*	22	22	30	34	48
MRSA	14	18	21	26	34
Percentage of mentions selected as underlying cause					
All *Staphylococcus aureus*	31	29	33	37	35
MRSA	26	31	33	35	30

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.
2. Excludes neonatal deaths.

Mortality rates for all deaths mentioning *Staphylococcus aureus* or MRSA

Age-standardised rates for deaths involving *S. aureus* and MRSA were highest in males (Figure 2). Rates for *S. aureus* among both males and females increased, by 48 and 63 per cent respectively over the period 2001 to 2005, to reach 31.8 deaths per million population in males and 19.7 per million in females (Table 5). Rates for deaths involving MRSA in males doubled from 12.5 per million population in 2001 to 25.0 in 2005. In females rates more than doubled from 6.7 to 14.5 per million population over the same period.

Most of the deaths involving *S. aureus* or MRSA were in the older age groups. Age-specific mortality rates for the combined period 2001 to 2005 show that for deaths involving MRSA, in the 85 and over age group, there were 484 and 230 deaths per million population, for males and females respectively. In the under 45 age group there were 0.8 and 0.6 deaths per million population, for males and females respectively (Table 6).

Place of death

Death certificates rarely specify the place where an infection was acquired. However, the place of death is recorded. Between 2001 and 2005, deaths involving *S.aureus* and MRSA made up 0.29 per cent and 0.20 per cent of all deaths in England and Wales respectively. Among deaths that occurred in NHS general hospitals and NHS nursing homes, deaths involving *S.aureus* made up 0.46 per cent and 0.56 per cent of the total in these institutions respectively. Deaths involving MRSA made up 0.32 and 0.37 per cent of all deaths in NHS general hospitals and NHS nursing homes respectively.

Most deaths occur in hospital (56 per cent of all deaths between 2001 and 2005 occurred in NHS general hospitals). This means that the majority of *S. aureus* and MRSA deaths also occurred in hospital. Many of these deaths in hospital will have been to patients who were admitted because they were already seriously ill with another condition. In England and Wales over the period 2001 to 2005, 90 per cent of deaths that mentioned *S. aureus* and 88 per cent of deaths that mentioned MRSA occurred in NHS general hospitals.

Figure 1 Number of death certificates mentioning *Staphylococcus aureus:* by meticillin resistance, 2001–2005

England and Wales

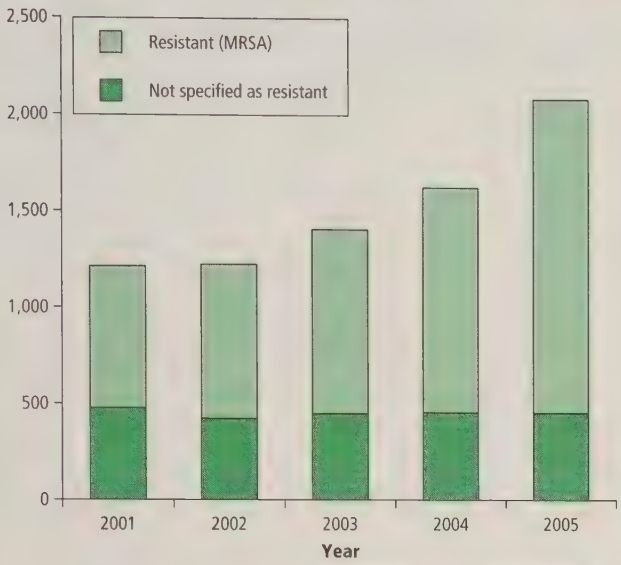

Figure 2 Age-standardised mortality rates for *Staphylococcus aureus* and MRSA, 2001–2005

England and Wales

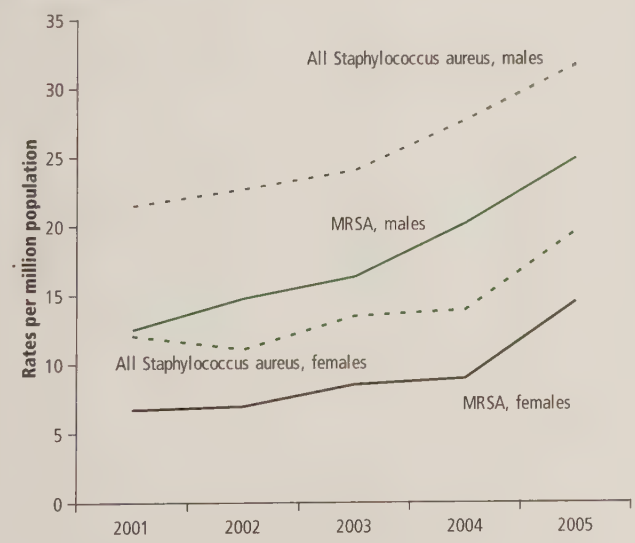

Table 5 Age-standardised mortality rates for *Staphylococcus aureus* and MRSA: by sex, 2001–2005

England and Wales

	Rates per million population					
	2001	2002	2003	2004	2005	% change 2001-2005
England and Wales[1]						
All *Staphylococcus aureus*, Males	21.5	22.7	24.1	27.7	31.8	48.0
All *Staphylococcus aureus*, Females	12.1	11.1	13.5	13.9	19.7	63.3
MRSA, Males	12.5	14.8	16.3	20.2	25.0	100.2
MRSA, Females	6.7	7.0	8.5	9.0	14.5	116.1
England						
All *Staphylococcus aureus*, Males	21.4	22.8	24.0	27.8	31.5	47.4
All *Staphylococcus aureus*, Females	12.1	11.0	13.3	14.1	19.5	61.0
MRSA, Males	12.3	14.6	16.3	20.1	24.7	101.2
MRSA, Females	6.7	6.9	8.4	8.9	14.4	115.8
Wales						
All *Staphylococcus aureus*, Males	21.7	21.6	24.1	27.1	34.8	60.7
All *Staphylococcus aureus*, Females	11.4	12.0	15.4	11.3	20.4	79.2
MRSA, Males	15.7	17.8	16.5	21.8	29.4	87.1
MRSA, Females	7.5	8.6	10.8	9.6	15.8	112.0

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.

Box one

Glossary of Terms

Staphylococcus aureus (*S. aureus*): This is a common germ that lives completely harmlessly on the skin and in the nose of about one third of people. It is more common on skin that is broken, e.g. by a cut or sore. People who have S. aureus on or in their bodies but who are unharmed by it are described as **colonised**. *S. aureus* can cause problems when it gets the opportunity to enter the body. This is more likely to happen in people who are already unwell.

Meticillin-resistant *Staphylococcus aureus* (MRSA): This is a variety of *S. aureus* that is resistant to meticillin, and some of the other antibiotics that are usually used to treat *S. aureus*. This sometimes makes it more difficult to treat MRSA infections.

Age-standardised rate: Directly age-standardised rates make allowances for differences in the age structure of the population, over time and between sexes. The age-standardised rate for a particular disease is that which would have occurred if the observed age-specific rates for the disease had applied in a given standard population. In this report we have used the **European Standard Population**. This is a hypothetical population standard, which is the same for both males and females allowing standardised rates to be compared for each sex, and between males and females.

Source: Health Protection Agency/ Office for National Statistics

Table 6 Age-specific mortality rates for *Staphylococcus aureus* and MRSA: by sex, 2001–2005

England and Wales

Age group	Rates per million population			
	Males		Females	
	All *S. aureus*	MRSA	All *S. aureus*	MRSA
England and Wales[1]				
Under 45	2.4	0.8	1.9	0.6
45–54	9.8	5.4	7.2	4.3
55–64	28.5	18.0	14.9	9.0
65–74	83.6	57.5	48.7	32.0
75–84	265.8	201.7	132.8	95.8
85 and over	612.6	484.2	307.5	230.0
England				
Under 45	2.4	0.8	1.8	0.6
45–54	10.0	5.4	7.3	4.3
55–64	28.1	17.2	14.9	9.0
65–74	83.1	56.9	48.4	31.5
75–84	262.6	198.3	132.0	94.2
85 and over	619.6	488.4	307.8	230.4
Wales				
Under 45	1.4	0.5	2.4	1.7
45–54	7.4	5.3	5.1	4.1
55–64	32.8	28.3	15.4	9.9
65–74	91.5	67.8	49.6	36.8
75–84	314.8	253.5	144.1	117.1
85 and over	485.8	414.7	298.5	219.2

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.

Table 7 Number of deaths mentioning *Staphylococcus aureus* and MRSA: by place of death, compared to all cause of death, 2001–2005

England and Wales

	All causes number of deaths	*S. aureus*			MRSA		
		Number of deaths	Percentage of all *S. aureus* deaths	*S.aureus* as a percentage of all deaths in the establishment	Number of deaths	Percentage of all MRSA deaths	MRSA as a percentage of all deaths in the establishment
England and Wales[1]							
Own home	481,793	109	1.4	0.02	76	1.4	0.02
NHS general hospital	1,471,296	6,785	90.0	0.46	4,659	88.1	0.32
Non-NHS general hospital	13,859	25	0.3	0.18	17	0.3	0.12
Hospice	115,672	30	0.4	0.03	24	0.5	0.02
NHS nursing home	13,556	76	1.0	0.56	50	0.9	0.37
Non-NHS nursing home	245,305	261	3.5	0.11	248	4.7	0.10
Private residential home	144,445	97	1.3	0.07	90	1.7	0.06
Local Authority residential home	37,311	21	0.3	0.06	21	0.4	0.06
Other places	104,150	137	1.8	0.13	101	1.9	0.10
Total	2,627,387	7,541	100.0	0.29	5,286	100.0	0.20
England							
Own home	450,337	99	1.4	0.02	68	1.4	0.02
NHS general hospital	1,370,292	6,359	90.0	0.46	4,338	88.2	0.32
Non-NHS general hospital	13,046	24	0.3	0.18	17	0.3	0.13
Hospice	112,061	29	0.4	0.03	23	0.5	0.02
NHS nursing home	13,384	74	1.0	0.55	48	1.0	0.36
Non-NHS nursing home	231,456	243	3.4	0.10	230	4.7	0.10
Private residential home	137,344	94	1.3	0.07	87	1.8	0.06
Local Authority residential home	35,059	21	0.3	0.06	21	0.4	0.06
Other places	94,306	120	1.7	0.13	85	1.7	0.09
Total	2,457,285	7,063	100.0	0.29	4,917	100.0	0.20
Wales							
Own home	31,384	10	2.1	0.03	8	2.2	0.03
NHS general hospital	97,122	416	89.1	0.43	315	86.8	0.32
Non-NHS general hospital	321	0	0.0	0.00	0	0.0	0.00
Hospice	3,472	1	0.2	0.03	1	0.3	0.03
NHS nursing home	165	2	0.4	1.21	2	0.6	1.21
Non-NHS nursing home	13,665	18	3.9	0.13	18	5.0	0.13
Private residential home	7,069	3	0.6	0.04	3	0.8	0.04
Local Authority residential home	2,247	0	0.0	0.00	0	0.0	0.00
Other places	8,599	17	3.6	0.20	16	4.4	0.19
Total	164,044	467	100.0	0.28	363	100.0	0.22

1. England and Wales data include non-residents who died in England and Wales. Data for England and Wales separately exclude deaths of non-residents.

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Report:

Deaths related to drug poisoning: England and Wales, 1993–2005

Introduction

This report presents the latest figures from the Office for National Statistics (ONS) database of deaths from drug-related poisoning and covers the period from 1993 to 2005. The database contains information on deaths from 1993. New data are for 2005. Data for 1993 to 2004 have been presented here for comparison purposes and to present a time series based on the new database (see below).

Changes in this report

For the first time, data in this report have been compiled based on deaths registered in each calendar year. Previous reports have been based on deaths occurring in each calendar year. This year ONS has taken the decision to base the database of deaths related to drug poisoning, on which this report draws, on the annual files of death registrations rather than death occurrences. This is because it has been becoming evident over the last few years that delays in registering deaths from drug poisoning have been increasing, as the time between death and inquest lengthens. This has rendered the annual occurrence files increasingly incomplete for these deaths, since they are frozen nine months after the year end to which they refer (e.g. the annual file for 2004 closed in September 2005). In contrast, the annual death registrations files, being based on all deaths that were registered in the year, regardless of when they occurred, can be closed earlier (April following the year end) and are always complete.

Analysis of deaths registered between 1993 and 2005 has shown that a total of 1,611 deaths were missing from the annual occurrence files used for the database between 1993 and 2004. In 1996, 2.2 per cent of deaths related to drug poisoning were missed. By 2003 this had risen to 6.8 per cent. There was no difference between males and females in the likelihood of a death being missed from the database, but the likelihood varied by cause of death, with suicides least likely to be missed (3.6 per cent overall) and undetermined intent deaths most likely (5.3 per cent). Compiling the database on deaths registered in each calendar year means that no deaths are missed from the database and presenting data by year of registration gives a good approximation to the overall trend. It should also allow the annual reports to be produced sooner after the year end than is presently possible.

The database

The database of deaths related to drug poisoning has been developed to facilitate research into these deaths and to aid the identification of specific substances involved. The database is extracted from the national deaths database for England and Wales. Deaths are included if the underlying cause of death is regarded as resulting from drug-related poisoning, according to the current National Statistics definition.[1] These are deaths coded according to the International Classification of Diseases Ninth Revision (ICD-9) for 1993 to 2000 and ICD-10 for 2001 onwards. The codes used are listed in Box One.

Box one

ICD-10 Underlying cause code	ICD-9 Underlying cause code	Description
F11–F16, F18–F19	292, 304, 305.2–305.9	Mental and behavioural disorders due to drug use (excluding alcohol and tobacco)
X40–X44	E850–E858	Accidental poisoning by drugs, medicaments and biological substances
X60–X64	E950.0–E950.5	Intentional self-poisoning by drugs, medicaments and biological substances
Y10–Y14	E980.0–E980.5	Poisoning by drugs, medicaments and biological substances, undetermined intent
X85	E962.0	Assault by drugs, medicaments and biological substances

The database covers accidents and suicides involving drug poisoning, as well as poisonings due to drug abuse and drug dependence, but not other adverse effects of drugs. The range of substances it contains is wide, including legal and illegal drugs, prescription drugs and over-the-counter medications. It does not include poisoning with non-medicinal substances such as household, agricultural or industrial chemicals. For each death the database includes every mention of a substance recorded on the death certificate or mentioned by the coroner. Almost all deaths on the database had a coroner's inquest. The underlying cause of death is recorded in addition to other information about the deceased, as described in Box Two.

Box two

For each death the database of drug-related poisonings includes:

The underlying cause of death.

Every mention of a substance recorded by the coroner in the cause of death section or elsewhere on the Coroner's certificate after inquest (Form 99(REV)) .

An indicator to show if alcohol is mentioned.

Other information recorded at death registration such as age, sex, marital status, occupation and place of usual residence.

Results

Number of deaths from drug-related poisoning by underlying cause

Table 1 gives the total number of deaths registered in each year from 1993 to 2005, presented by their underlying cause. Each death is assigned an underlying cause of death which reflects the verdict of the coroner and the wording on the coroner's certificate.

Table 1 shows that the number of deaths related to drug poisoning for males rose in 2005 to 1,887 although this figure is still lower than the highest recorded number of 2,143 in 2001. The number of deaths for females shows no real trend over time. Consequently, the gap between males and females increased, with twice as many deaths for males compared to females in 2005. Among males, broadly similar numbers of deaths were due to drug abuse/dependence (30 per cent), accidental poisoning (30 per cent) and intentional self-poisoning/poisoning of undetermined intent (39 per cent). The majority of deaths among females were intentional self poisonings and poisonings of undetermined intent (64 per cent of deaths related to drug poisoning in 1993–2005 combined).

Number of deaths from drug-related poisoning where selected substances were mentioned on the death certificate

Table 2 gives numbers of deaths where specific substances were mentioned on the death certificate for 1993 to 2005.

These figures need to be interpreted with some caution for the following reasons:

1. In around 10 per cent of deaths on the database only a general description, such as 'drug overdose', is recorded on the coroner's certificate of death. These deaths do not contribute to the count of specific substances.
2. Where more than one drug is mentioned on the death certificate, it is not always possible to tell which of them was primarily responsible for the death.
3. Some deaths may be counted in more than one category in these tables. For example, if heroin and cannabis are recorded on the death certificate, the death will be recorded once under heroin and once under cannabis. Therefore the numbers in each column cannot be added together to give a total number of deaths.

As heroin (diamorphine) breaks down in the body into morphine, the latter may be detected at post mortem and recorded on the death certificate. Therefore a combined figure for deaths where heroin or morphine was mentioned on the death certificate is included in Table 2. The figure for cocaine in Table 2 includes deaths where cocaine was taken in the form of crack cocaine. It is not possible to separately identify crack cocaine from other forms of cocaine at post mortem. Other evidence to distinguish the form of cocaine taken is rarely provided on death certificates.

In 2005, 34 per cent of deaths mentioned more than one drug, or a 'multiple drug overdose' for example, and 27 per cent of deaths contained a mention of alcohol in addition to a drug.

Table 1 Numbers of deaths from drug-related poisoning: by sex and underlying cause of death, 1993–2005

England and Wales

Cause (ICD-10; ICD-9)[1]		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total Number	Percentage of total
Total	Males	1,313	1,456	1,642	1,742	1,887	1,985	2,136	2,058	2,143	1,941	1,741	1,856	1,887	23,787	100.0
	Females	865	894	898	876	930	991	974	874	950	889	882	931	875	11,829	100.0
Mental and behavioural disorders due to drug use (excluding alcohol and tobacco) (F11–F16, F18–F19; 292, 304, 305.2–305.9)	Males	221	286	330	427	463	596	693	676	758	711	642	648	700	7,151	30.1
	Females	50	49	64	75	87	117	110	93	133	120	134	124	127	1,283	10.8
Accidental poisoning by drugs, medicaments and biological substances (X40–X44; E850–E858)	Males	391	486	562	567	632	587	642	620	643	539	440	523	534	7,166	30.1
	Females	194	222	190	212	217	231	241	218	259	220	209	237	239	2,889	24.4
Intentional self-poisoning by drugs, medicaments and biological substances and poisoning by drugs, medicaments and biological substances, undetermined intent (X60–X64, Y10–Y14; E950.0–E950.5, E980.0–E980.5)	Males	695	680	750	742	782	793	794	748	726	681	657	679	648	9,375	39.4
	Females	620	619	643	583	625	639	621	561	553	544	538	568	506	7,620	64.4
Assault by drugs, medicaments and biological substances (X85; E962.0)	Males	6	4	0	6	10	9	7	14	16	10	2	6	5	95	0.4
	Females	1	4	1	6	1	4	2	2	5	5	1	2	3	37	0.3

1. From 2001, cause of death is coded to ICD-10.

Table 2 Numbers of deaths where selected substances were mentioned on the death certificate, 1993–2005

England and Wales

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
a) Total mentions													
All deaths	2,178	2,350	2,540	2,618	2,817	2,976	3,110	2,932	3,093	2,830	2,623	2,787	2,762
Heroin and Morphine	155	270	331	440	444	609	755	851	981	865	696	751	842
Methadone	206	262	304	322	437	398	336	269	244	199	201	219	220
Cocaine	11	24	22	13	27	65	88	83	97	128	129	154	176
All amphetamines	51	37	49	46	56	63	82	61	79	94	81	80	103
MDMA/Ecstasy	12	20	17	16	15	17	21	28	55	56	50	43	58
Cannabis	13	19	16	9	14	10	8	9	16	13	11	19	19
Gamma-hydroxybutyrate (GHB)	0	0	0	1	0	0	3	3	1	5	6	1	4
All benzodiazepines	277	269	277	221	243	245	262	206	248	241	224	233	190
Temazepam	165	159	159	102	97	111	95	70	77	70	70	78	45
Diazepam	52	62	89	84	111	117	120	87	123	131	121	94	101
Nitrazepam	23	21	15	10	15	9	6	8	4	12	5	13	11
Zopiclone/Zolpidem	0	9	6	10	12	14	20	41	37	47	40	57	48
Barbiturates	42	45	40	41	21	27	30	21	26	22	20	16	14
All antidepressants	435	466	511	508	524	538	533	441	452	383	432	469	401
Tricyclic antidepressants (BNF 4.3.1)	412	448	488	480	488	490	474	374	361	293	310	313	272
Dothiepin	181	262	244	273	254	260	242	186	190	170	158	134	107
Amitriptyline	171	138	154	146	175	184	184	148	134	92	125	148	127
Monoamine-oxidase inhibitors (BNF 4.3.2)	9	7	8	2	5	7	3	5	2	3	4	3	2
Selective serotonin re-uptake inhibitors (BNF 4.3.3)	11	6	18	18	19	29	33	50	64	49	74	105	81
Other antidepressants (BNF 4.3.4)	0	0	1	2	12	6	17	18	32	43	56	65	56
Paracetamol (includes dextropropoxyphene mentioned without paracetamol)[1]	553	530	589	556	653	633	603	566	553	517	454	517	410
Paracetamol	478	461	508	466	548	546	505	479	448	443	395	448	362
Paracetamol & dextropropoxyphene compound formulation (includes dextropropoxyphene mentioned without paracetamol)[1]	304	306	369	328	385	383	388	375	353	312	264	287	202
Paracetamol & codeine compound formulation	5	8	12	10	12	16	13	16	8	29	30	52	42
Paracetamol & dihydrocodeine compound formulation	10	5	11	5	9	14	12	9	9	17	16	15	19
Paracetamol not from compound formulation	236	215	202	215	254	233	195	177	192	168	153	174	153
Codeine not from compound formulation	24	9	17	15	28	23	24	32	26	38	35	50	44
Dihydrocodeine not from compound formulation	52	56	60	76	87	91	124	104	125	116	100	82	106
Aspirin	58	55	50	55	48	45	29	25	25	27	19	27	19
Tramadol	0	0	0	1	5	7	23	24	28	36	36	43	53
b) Mentions without other drugs													
All deaths mentioning only one drug	1,654	1,796	1,924	2,007	2,165	2,214	2,338	2,206	2,314	1,975	1,743	1,783	1,834
Heroin and Morphine	108	187	248	331	329	445	572	662	723	621	481	491	558
Methadone	122	148	182	189	288	230	178	150	126	91	74	105	98
Cocaine	9	14	10	6	12	27	29	40	40	41	43	48	53
All amphetamines	28	14	25	23	27	30	31	24	38	41	45	45	59
MDMA/Ecstasy	9	10	10	8	8	10	6	10	26	24	29	24	33
Cannabis	2	2	1	0	1	0	0	0	0	0	1	1	2
Gamma-hydroxybutyrate (GHB)	0	0	0	1	0	0	2	1	0	2	2	0	2
All benzodiazepines	91	86	73	47	54	39	48	37	37	37	33	43	31
Temazepam	59	59	50	31	28	24	30	22	18	16	20	20	16
Diazepam	6	9	10	7	10	6	4	6	6	5	5	5	6
Nitrazepam	10	7	4	5	7	5	2	4	3	3	3	7	4
Zopiclone/Zolpidem	0	4	2	2	0	4	6	9	8	21	8	12	15
Barbiturates	34	32	34	28	16	17	21	19	17	17	15	13	11
All antidepressants	300	332	373	374	376	373	357	277	266	226	245	246	215
Tricyclic antidepressants (BNF 4.3.1)	286	322	361	359	351	348	327	251	234	192	203	186	167
Dothiepin	130	198	191	217	196	200	180	131	133	116	113	87	75
Amitriptyline	116	88	117	103	114	118	117	90	77	58	71	83	68
Monoamine-oxidase inhibitors (BNF 4.3.2)	5	3	2	2	2	5	3	2	1	0	2	1	1
Selective serotonin re-uptake inhibitors (BNF 4.3.3)	3	1	4	5	7	5	7	12	18	10	15	30	27
Other antidepressants (BNF 4.3.4)	0	0	0	1	8	4	10	8	8	21	22	24	19
Paracetamol	193	175	163	173	217	191	162	137	155	127	122	128	129
Codeine	10	4	3	8	15	5	9	8	11	16	12	17	19
Dihydrocodeine	30	36	30	44	41	41	70	50	64	50	49	31	43
Aspirin	39	36	34	29	30	34	16	10	11	12	11	9	6
Tramadol	0	0	0	0	1	3	13	14	14	17	23	21	26

1. Dextropropoxyphene is very rarely ingested except in combination with paracetamol in England and Wales.

Table 2 continued Numbers of deaths where selected substances were mentioned on the death certificate, 1993–2005

England and Wales

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
c) Mentions with alcohol													
All deaths mentioning one or more drugs and alcohol	417	489	541	535	619	686	706	727	793	668	659	756	744
Heroin and Morphine	30	58	86	101	106	158	209	226	272	225	231	250	283
Methadone	41	58	68	69	100	85	92	70	86	59	71	70	87
Cocaine	0	3	3	4	5	12	15	16	17	38	30	38	37
All amphetamines	6	8	6	7	5	7	6	11	17	12	17	18	17
MDMA/Ecstasy	1	4	1	4	1	3	2	5	13	7	12	13	14
Cannabis	5	5	5	4	6	2	4	3	7	3	6	7	9
Gamma-hydroxybutyrate (GHB)	0	0	0	1	0	0	2	1	1	2	4	1	1
All benzodiazepines	104	97	98	71	100	87	89	85	97	91	96	93	88
Temazepam	59	54	53	27	32	34	31	27	24	16	21	32	20
Diazepam	30	26	38	31	58	39	39	37	54	58	55	36	50
Nitrazepam	7	6	2	3	1	4	1	4	0	4	0	4	5
Zopiclone/Zolpidem	0	6	1	5	4	4	8	16	12	17	11	24	18
Barbiturates	9	7	1	6	2	4	1	8	5	7	1	2	1
All antidepressants	69	80	87	76	99	102	101	93	103	88	106	129	100
Tricyclic antidepressants (BNF 4.3.1)	67	77	86	71	90	89	89	72	71	64	75	75	65
Dothiepin	30	47	40	43	46	46	41	37	42	39	42	24	32
Amitriptyline	28	20	33	18	34	36	36	27	27	17	29	40	25
Monoamine-oxidase inhibitors (BNF 4.3.2)	0	0	0	0	1	1	0	1	0	0	1	0	0
Selective serotonin re-uptake inhibitors (BNF 4.3.3)	3	0	1	5	4	6	6	20	24	13	19	40	30
Other antidepressants (BNF 4.3.4)	0	0	0	1	3	3	2	3	6	10	16	17	9
Paracetamol (includes dextropropoxyphene mentioned without paracetamol)[1]	106	127	134	127	161	172	146	140	163	129	117	135	92
Paracetamol	94	102	106	95	121	134	117	112	132	106	99	112	70
Paracetamol & dextropropoxyphene compound formulation (includes dextropropoxyphene mentioned without paracetamol)[1]	76	93	106	91	109	121	109	109	123	99	72	96	48
Paracetamol & codeine compound formulation	2	1	0	3	1	2	6	2	3	7	8	9	14
Paracetamol & dihydrocodeine compound formulation	1	1	3	1	2	4	1	2	2	5	6	3	5
Paracetamol not from compound formulation	27	33	25	32	50	48	31	28	38	22	33	28	26
Codeine not from compound formulation	10	2	5	6	9	6	5	15	5	14	11	21	14
Dihydrocodeine not from compound formulation	13	8	11	23	12	21	21	24	24	27	26	18	31
Aspirin	4	11	4	8	6	7	1	2	3	5	1	3	3
Tramadol	0	0	0	0	0	2	2	6	4	7	8	9	6

1. Dextropropoxyphene is very rarely ingested except in combination with paracetamol in England and Wales.

The number of deaths involving heroin or morphine rose in 2005, for the second successive year, to 842 deaths. However, this figure is still lower than the highest recorded number of 981 deaths in 2001. The number of deaths involving methadone remained similar to 2004 at 220, after lows of around 200 seen in 2002 and 2003. Deaths involving cocaine increased again to 176 deaths. This was the highest number of deaths where cocaine was mentioned since records began in 1993, when 11 deaths mentioned cocaine.

The number of deaths involving amphetamines increased to 103 in 2005, the highest recorded. More than half of these deaths were accounted for by deaths mentioning ecstasy. A small number of deaths mentioned cannabis or Gamma-hydroxybutyrate (GHB).

The number of death certificates which mentioned benzodiazepines decreased to 190 in 2005. This appears to continue a long-term downward trend in overall mentions of these drugs. This appears to be the result of conflicting trends – deaths involving temazepam declining at a slower rate than the increase in deaths involving diazepam. Deaths involving nitrazepam remained at low levels.

In 2005, the number of deaths involving antidepressants decreased to 401, following an increase in 2003 and 2004. All of the main antidepressant types saw a decrease in the number of deaths mentioning them in 2005. For dothiepin, this continues the downward trend seen over the period 1998 to 2005. The number of deaths mentioning amitriptyline had increased in 2003 and 2004, but fell back in 2005. Deaths involving selective serotonin re-uptake inhibitors (SSRIs) such as fluoxetine, paroxetine and citalopram declined to 81. This follows a trend of increasing numbers for these deaths. The number of deaths involving other antidepressants, such as venlafaxine, also fell, to 56 deaths in 2005, following a peak of 65 deaths in 2004.

Deaths involving paracetamol and its compounds declined in 2005 to 410 deaths. The overall figure for paracetamol includes those deaths where dextropropoxyphene was mentioned alone on the death certificate, as this substance is very rarely ingested except in combination with paracetamol in England and Wales. The overall decrease was due to a decline in the number of deaths involving paracetamol not from compound formulation, co-proxamol (paracetamol and dextropropoxyphene) and co-codamol (paracetamol and codeine), although the biggest impact on the decline was from deaths involving co-proxamol and non-compound paracetamol. Deaths involving co-dydramol (paracetamol and dihydrocodeine) increased slightly, though numbers are small. The number of deaths involving tramadol increased to 53 deaths, the highest recorded number.

Deaths related to drug misuse

In 2000 the Advisory Council on the Misuse of Drugs published a report, *Reducing Drug Related Deaths*.[2] In response to this report's recommendations on improving the present system for collecting data on drug-related deaths, a technical working group was set up. This group, consisting of experts across government, the devolved administrations, coroners, toxicologists and drugs agencies, proposed a headline indicator for drug-misuse-related deaths as part of the Government's Action Plan[3] to reduce the number of these deaths. This indicator also takes into account the information needs of the European Monitoring Centre for Drugs and Drug Addiction. The definition of the indicator is *deaths where the underlying cause is poisoning, drug abuse or drug dependence and where*

Box three

Cause of death categories included in the headline indicator of drug misuse deaths (the relevant codes from ICD-10 are given in brackets):

a) deaths where the underlying cause of death has been coded to the following categories of mental and behavioural disorders due to psychoactive substance use (excluding alcohol, tobacco and volatile solvents):

(i) opioids (F11);
(ii) cannabinoids (F12);
(iii) sedatives or hypnotics (F13);
(iv) cocaine (F14);
(v) other stimulants, including caffeine (F15);
(vi) hallucinogens (F16); and
(vii) multiple drug use and use of other psychoactive substances (F19)

b) deaths coded to the following categories **and** where a drug controlled under the Misuse of Drugs Act 1971 was mentioned on the death record:
(i) Accidental poisoning by drugs, medicaments and biological substances (X40–X44);
(ii) Intentional self-poisoning by drugs, medicaments and biological substances (X60–X64);
(iii) Poisoning by drugs, medicaments and biological substances, undetermined intent (Y10–Y14);
(iv) Assault by drugs, medicaments and biological substances (X85); and
(v) Mental and behavioural disorders due to use of volatile solvents (F18)

Notes:

1. Deaths coded to opiate abuse which resulted from the injection of contaminated heroin have been *included* in the indicator. This differs from the approach taken in Scotland, where these deaths have been *excluded*. This is because the General Register Office for Scotland (GROS) is able to identify deaths which occurred as a result of the use of contaminated heroin, whereas in England and Wales, these deaths cannot be readily identified. In practice, in England and Wales, they will only be included where the drug was mentioned on the death record and the death was coded to one of the ICD codes on the ONS-database of drug-related poisonings and not to an infection code.
2. Specific rules were adopted for dealing with compound analgesics which contain relatively small quantities of drugs listed under the Misuse of Drugs Act, the major ones being dextropropoxyphene, dihydrocodeine and codeine. Where these drugs are mentioned on a death record, they have been excluded if they are part of a compound analgesic (such as *co-proxamol, co-dydramol or co-codamol*) or cold remedy. Dextropropoxyphene has been excluded on all occasions, whether or not paracetamol or a compound analgesic was mentioned. This is because dextropropoxyphene is rarely, if ever, available other than as part of a paracetamol compound. However, codeine or dihydrocodeine mentioned **alone** were included in the indicator. This is because they are routinely available and known to be abused in this form. This approach is the same as that taken by GROS.
3. Drugs controlled under the Misuse of Drugs Act 1971 include class A, B and C drugs.
4. Information on the cause of death categories used to define the indicator in ICD-9 can be found in the report in *Health Statistics Quarterly* 13.[4]

any of the substances controlled under the Misuse of Drugs Act (1971) are involved. This definition has been adopted across the UK. The baseline year for monitoring deaths related to drug misuse was set as 1999.

The definition of the headline indicator using ICD-10 is shown in Box Three. The definition using ICD-9 was published in a previous annual report.[4]

Table 3 shows numbers of deaths related to drug misuse, using this definition and the current list of drugs controlled under the Misuse of Drugs Act, for 1993–2005. The total number of deaths rose to 1,608 in 2005, following an increase in 2004. This is mainly due to a rise among males but misuse deaths in females also rose, despite a fall in the total number of drug-related poisoning deaths among women. The percentage of all deaths related to drug poisoning that are due to drug misuse increased, from 54 per cent in 2004 to 58 per cent in 2005.

Table 3 **Number of deaths related to drug misuse:[1] by sex and country, 1993–2005**

England and Wales

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
England and Wales[2]	829	958	1,089	1,156	1,312	1,457	1,628	1,604	1,805	1,613	1,431	1,495	1,608
Males	577	718	840	936	1,041	1,142	1,321	1,329	1,450	1,269	1,117	1,177	1,260
Females	252	240	249	220	271	315	307	275	355	344	314	318	348
England	786	918	1,026	1,097	1,233	1,389	1,538	1,510	1,696	1,505	1,312	1,415	1,506
Males	543	691	792	890	979	1,092	1,252	1,250	1,362	1,182	1,017	1,110	1,182
Females	243	227	234	207	254	297	286	260	334	323	295	305	324
Wales	33	35	47	46	60	56	73	78	92	88	109	68	89
Males	26	24	35	35	44	41	52	67	76	71	92	55	70
Females	7	11	12	11	16	15	21	11	16	17	17	13	19
Percentage of all deaths on the database	38	41	43	44	47	49	52	55	58	57	55	54	58

1. As defined by the current headline indicator on drug misuse (see Box Three).
2. Figures for England and Wales include deaths to non-residents. The separate figures for England and for Wales include only deaths to residents of those countries.

Table 4 Number of deaths related to drug misuse:[1] by sex, underlying cause of death, and age group, 1993–2005

England and Wales

		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
a) by sex and underlying cause of death (ICD-10; ICD-9)[2]														
Mental and behavioural disorders due to drug use (excluding alcohol and tobacco) (F11–F16, F18–F19; 292, 304, 305.2–305.9)	Males	185	252	304	398	438	562	654	656	735	685	629	631	682
	Females	46	45	54	68	79	107	103	90	124	109	126	117	122
Accidental poisoning by drugs, medicaments and biological substances (X40–X44; E850–E858)	Males	226	313	380	359	435	405	451	452	472	379	312	364	389
	Females	69	77	75	67	72	90	102	85	108	106	75	78	103
Intentional self–poisoning by drugs, medicaments and biological substances and poisoning by drugs, medicaments and biological substances, undetermined intent (X60–X64, Y10–Y14; E950.0–E950.5, E980.0–E980.5)	Males	162	149	156	174	159	168	212	207	231	195	175	177	184
	Females	136	116	119	84	119	115	100	99	119	124	112	123	121
Assault by drugs, medicaments and biological substances (X85; E962.0)	Males	4	4	0	5	9	7	4	14	12	10	1	5	5
	Females	1	2	1	1	1	3	2	1	4	5	1	0	2
b) by sex and broad age group														
Under 20	Males	39	47	55	53	75	74	74	53	56	49	40	26	29
	Females	11	15	13	19	15	24	19	21	20	21	13	18	12
20–29	Males	224	292	341	385	456	453	477	456	503	482	353	346	336
	Females	46	40	58	60	82	77	83	64	97	81	72	80	66
30–39	Males	167	213	253	297	299	379	502	492	537	479	456	480	521
	Females	42	47	63	48	47	87	80	72	89	84	87	77	107
40–49	Males	75	97	115	125	140	176	179	239	247	167	186	197	239
	Females	40	38	31	29	46	52	39	48	62	63	55	64	83
50–69	Males	44	44	51	44	51	41	64	68	71	75	63	108	114
	Females	53	52	42	30	43	41	41	38	45	58	51	47	53
70 and over	Males	28	25	25	32	20	19	25	21	36	17	19	20	21
	Females	60	48	42	34	38	34	45	32	42	37	36	32	27

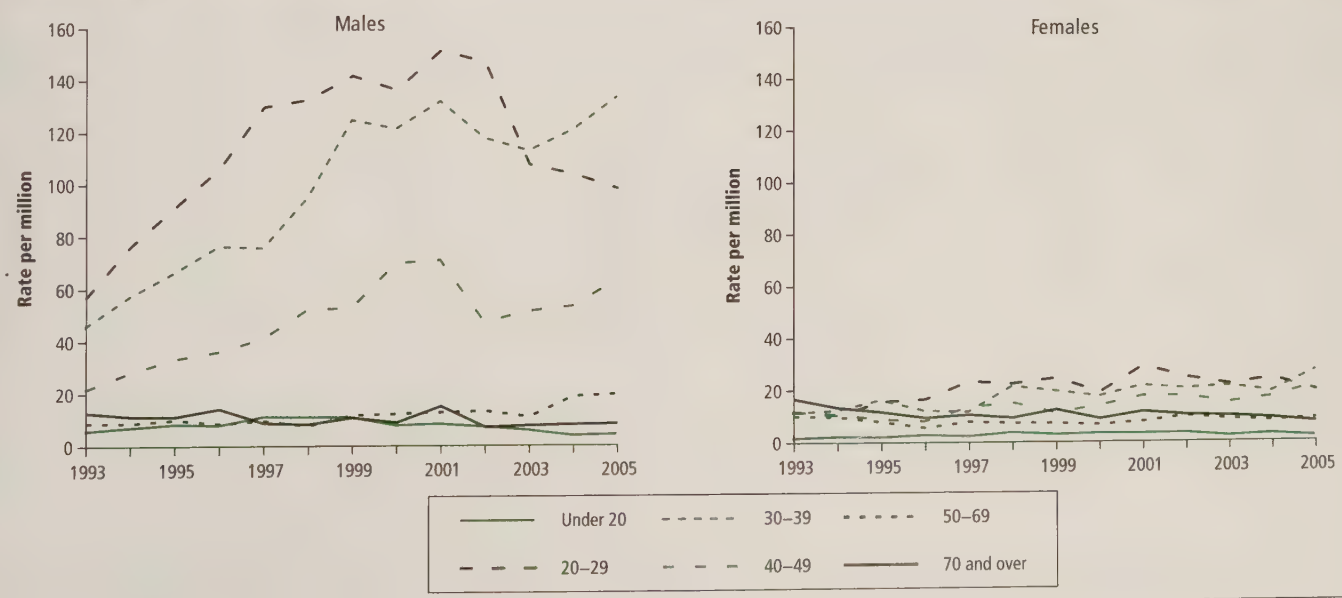
1. As defined by the headline indicator on drug misuse (see Box Three).
2. From 2001, cause of death is coded to ICD–10.

Table 4a shows deaths involving drug misuse by underlying cause of death. In 2005, 'mental and behavioural disorders due to drug use' formed the largest proportion of deaths related to misuse in males and females, although among females intentional self poisoning/poisoning of undetermined intent made up only a very slightly smaller proportion. Table 4b shows the headline data disaggregated by broad age group. This shows that in males the highest numbers of deaths occurred in the 30–39 and 20–29 age groups. Male deaths related to drug misuse were more concentrated in this age range than female deaths, with females having a more even distribution across these and the older age groups.

Figure 1 shows the trend in mortality rates by age group for deaths related to drug misuse. For males, rates increased between 2004 and 2005 in every age group except 20–29, where rates continued to fall. Among

Figure 1 Age-specific mortality rates for deaths related to drug misuse: by sex, 1993–2005

England and Wales

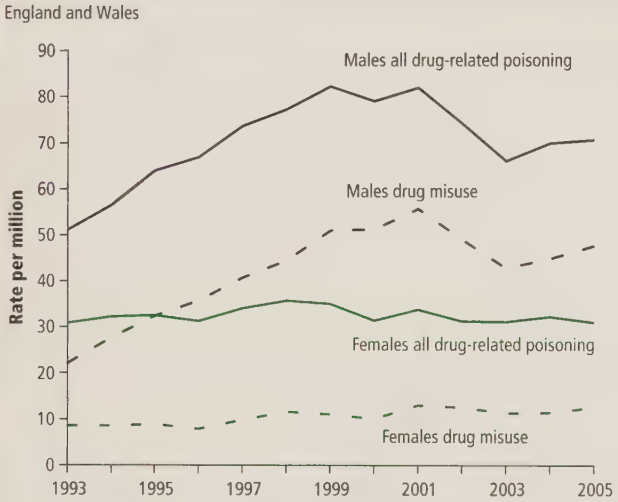


females, rates were lower than for males in every age group. Rates fell in the 20–29 age group, as for males. Rates for both males and females were highest in the 30–39 age group in 2005.

Age-standardised death rates for all drug-related poisoning and drug misuse

Figure 2 shows the trend in mortality rates for drug-related poisoning and deaths related to drug misuse from 1993 to 2005. For males, rates for all drug-related poisoning increased between 1993 and 1999, was stable to 2001 and then declined to 2003 before increasing again in 2004 and 2005. Deaths related to drug misuse followed a fairly similar pattern, though there was a steady increase to a marked peak in 2001, rather than a 'two peaked' pattern seen for all drug poisonings. For females there was no discernable trend for all deaths related to drug poisoning, and a slow but fairly steady increase in deaths related to drug misuse.

Figure 2 Mortality rates[1] for all drug-related poisoning and drug misuse: by sex, 1993-2005



1. Directly age-standardised using the European Standard Population.

Age-standardised death rates for selected substances

Figure 3 shows the trend in mortality rates from drug-related poisoning for both sexes for selected major substances from 1993 to 2005.

The figure shows that, among males, death rates for heroin/morphine increased dramatically between 1993 and 2001. In 1993, only amphetamines had a lower rate than heroin/morphine, but from 1998 onwards rates for heroin/morphine were substantially higher than for any other substance. The rate rose again in 2005, following an increase in 2004 after rates had declined from a peak in 2001. Rates for amphetamines and benzodiazepines have remained fairly steady over the period whereas rates for antidepressants and paracetamol and compounds decreased from peaks in the late 1990s. Death rates for methadone peaked in 1997, when they were similar to rates for heroin/morphine, and have fallen since.

For females, the highest rates were for paracetamol and compounds and antidepressants, the most commonly used substances in suicides (which make up the majority of drug-related poisoning deaths among women). As seen in males, rates for heroin and morphine have increased overall, but there was not a strong peak in 2001 as there was in males.

Further information

For further information on the ONS database of drug-related poisoning deaths email mortality@ons.gov.uk.

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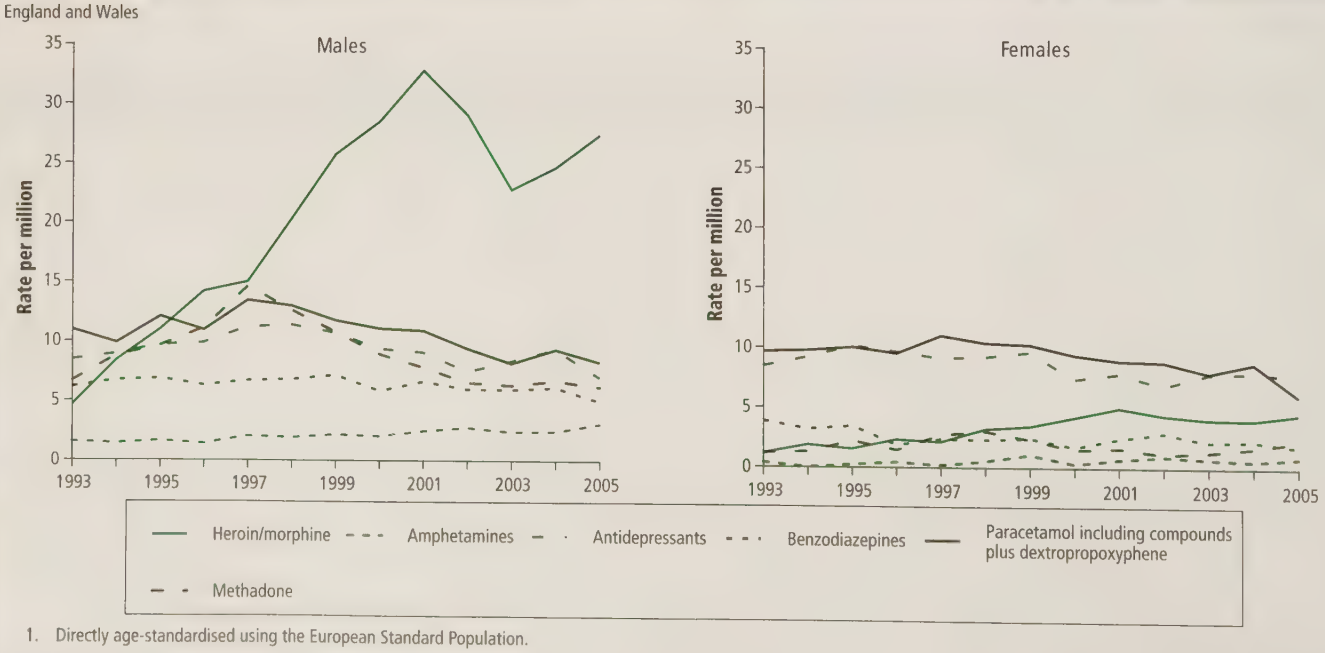
1. Christophersen O, Rooney C and Kelly S (1998) Drug related deaths: methods and trends. *Population Trends* **93**, 29–37.
2. The Advisory Council on the Misuse of Drugs (2000) *Reducing drug related deaths,* Home Office.
3. Department of Health (2001) *The Government Response to the Advisory Council on the Misuse of Drugs Report into Drug Related Deaths.* Department of Health.
4. Office for National Statistics (2002) Deaths related to drug poisoning: results for England and Wales 1993–2000. *Health Statistics Quarterly* **13**, 76–82.

Figure 3 Mortality rates[1] for selected substances: by sex, 1993–2005



1. Directly age-standardised using the European Standard Population.

Annual Update:

2005 Mortality statistics: cause (England and Wales)

Introduction

This update summarises some of the findings from the annual reference volume *Mortality statistics: cause 2005* (series DH2 no. 32),[1] which was published in December 2006. It presents data and analysis on deaths occurring in England and Wales in 2005 by age, sex and cause. More detailed data, including trends for selected causes using age-standardised rates, are available in the annual reference volume.

Deaths are classified according to the Tenth Revision of the *International Statistical Classification of Diseases and Related Health Problems* (ICD-10). ICD-10 was introduced for coding cause of death in England and Wales in January 2001. It replaced the Ninth Revision of the *International Classification of Diseases* (ICD-9), which was used between 1979 and 2000. Consequently, the mortality data presented in DH2 from 2001 onwards are not directly comparable with those prior to that year without first understanding the impact of ICD-10. Further guidance on how to compare ICD-10 outputs with those published previously and the broader implications of the move to ICD-10 can be found at the ICD-10 homepage[2] and in several Reports in *Health Statistics Quarterly*.[3-7] Some analysis in this Update looks at trends in data going back to 1971. It is, therefore, important to be aware of two

Table 1 Deaths and age-standardised death rates in England and Wales, 1971–2005

Year	Persons		Males		Females	
	Deaths	Age-standardised rate[1]	Deaths	Age-standardised rate[1]	Deaths	Age-standardised rate[1]
1971	567,262	10,326	288,359	13,466	278,903	8,189
1981	577,890	9,374	289,022	12,189	288,868	7,425
1991	570,044	8,001	277,582	10,251	292,462	6,410
1992	558,313	7,800	271,732	9,935	286,581	6,273
1993	578,799	7,962	279,561	10,101	299,238	6,427
1994	553,194	7,567	267,555	9,577	285,639	6,115
1995	569,683	7,660	274,449	9,659	295,234	6,206
1996	560,135	7,459	268,682	9,353	291,453	6,068
1997	555,281	7,322	264,865	9,106	290,416	6,001
1998	555,015	7,246	264,707	8,981	290,308	5,945
1999	556,118	7,193	264,299	8,862	291,819	5,929
2000	535,664	6,857	255,547	8,437	280,117	5,655
2001	530,373	6,692	252,426	8,188	277,947	5,543
2002	533,527	6,643	253,144	8,074	280,383	5,526
2003	538,254	6,642	253,852	7,985	284,402	5,578
2004	512,541	6,272	244,130	7,535	268,411	5,259
2005	512,692	6,152	243,324	7,337	269,368	5,188

1. These rates are standardised to the European Standard Population, expressed per million population; they allow comparisons between populations with different age structures, including between males and females and over time.

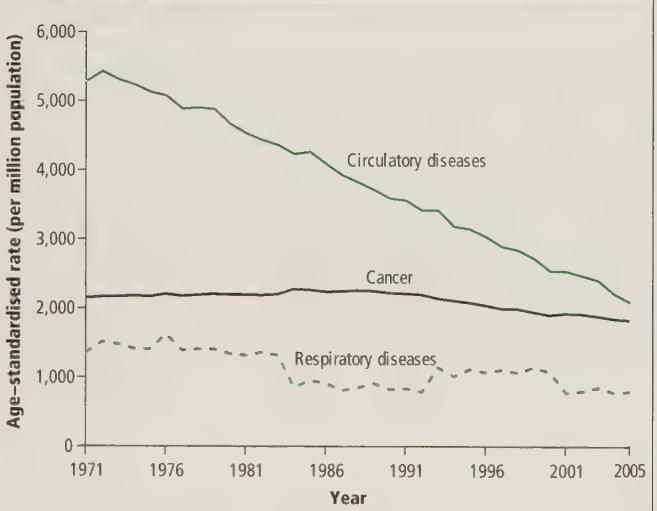
other changes in the ICD and their impacts on cause of death data. These are the introduction of ICD-9 in 1979,[8] when it replaced ICD-8, and changes in the interpretation of Rule 3[9] in 1984[10] and 1992.[11]

Cause of death

There were 512,692 deaths in England and Wales in 2005, 151 more than in 2004 (Table 1). Deaths in 2005 comprised 243,324 male deaths and 269,368 female deaths. The main causes of death were circulatory diseases (36 per cent), which include coronary heart disease and stroke, cancers (27 per cent) and respiratory diseases (14 per cent), which include pneumonia.

Allowing for changes in the age structure of the population, there has been a long-term trend of decreasing mortality rates: between 1971 and 2005 age-standardised rates fell by 46 per cent for males and 37 per cent for females (Table 1). Figure 1 shows how the three causes of death with the highest mortality rates changed over this period. Circulatory diseases had the highest death rate throughout the period, despite a fall of 61 per cent since 1971. The male death rate from circulatory diseases is higher than that for females: 2,597 per million males compared with 1,643 per million females in 2005. Death rates from cancer and respiratory diseases were 15 and 42 per cent lower respectively in 2005 than in 1971. It is important to note, however, that some of the variation in the rate for respiratory diseases can be attributed to the impact of changes to the interpretation of Rule 3[9] and changes in the ICD[7] over this period.

Figure 1 Age-standardised rates[1] for the three major causes of death (per million population), 1971–2005

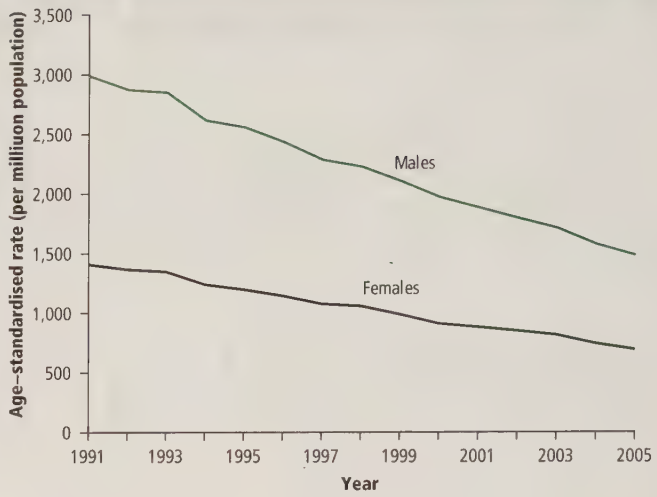


1. These rates are standardised to the European Standard Population; they allow comparisons between populations with different age structures.

Note: The Ninth Revision of the International Classification of Diseases (ICD-9) came into operation in England and Wales in 1979, and The Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10) came into operation in 2001. There were also further changes in the way ONS interpreted Rule 3 in 1984 and 1992, which affected the coding of underlying cause of death. The impacts of all these changes are discussed in references 2, 3, 5–11 of this update.

Table 5 in the annual reference volume[1] shows how age-standardised mortality rates for selected cancers and other causes of death have changed for males and females over time, allowing for changes in the age structure of the population. The death rate for ischaemic heart disease fell by 51 per cent for both males and females between 1991 and 2005 (Figure 2). Between 2004 and 2005 the rate fell by 6 per cent for males and 7 per cent for females. The male rate remained at just over twice the female rate throughout the period.

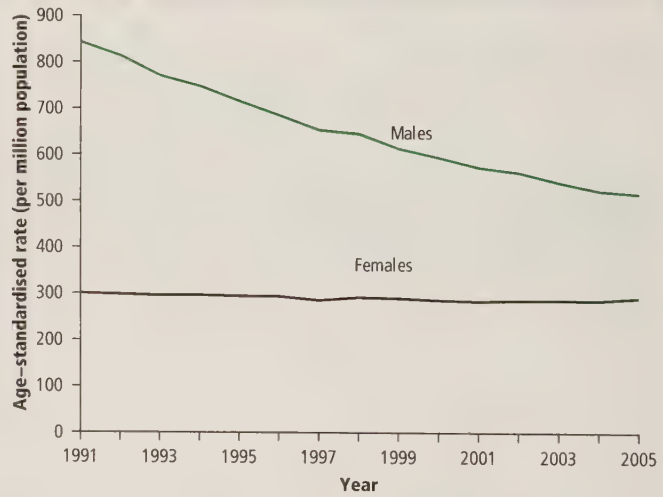
Figure 2 Age-standardised rates[1] for ischaemic heart disease (per million population), 1991–2005



1. These rates are standardised to the European Standard Population; they allow comparisons between populations with different age structures.

Note: The Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10) came into operation in 2001. There were also further changes in the way ONS interpreted Rule 3 in 1984 and 1992, which affected the coding of underlying cause of death. The impacts of these changes are discussed in references 2, 3, 5, 9–11 of this update.

Figure 3 Age-standardised rates[1] for cancer of the trachea,bronchus and lung (per million population), 1991–2005

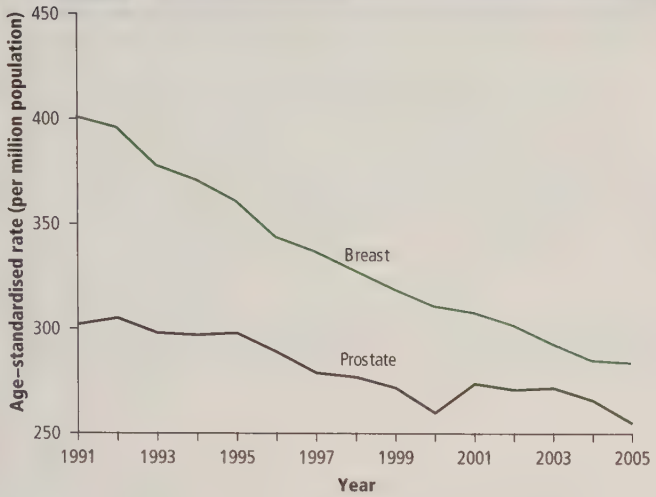


1. These rates are standardised to the European Standard Population; they allow comparisons between populations with different age structures.

Note: The Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10) came into operation in 2001. There were also further changes in the way ONS interpreted Rule 3 in 1984 and 1992, which affected the coding of underlying cause of death. The impacts of these changes are discussed in references 2, 3, 6, 9–11 of this update.

Death rates for most of the cancers shown in Table 5 of the volume[1] decreased between 1991 and 2005. The exceptions were melanoma of the skin, where the rate increased by 22 per cent for males and 17 per cent for females, and cancer of the oesophagus in males, which increased by 13 per cent. Figure 3 shows death rates for cancer of the trachea, bronchus and lung between 1991 and 2005. Although the rate for males is higher than for females, the overall decrease in the rate among males (39 per cent) has been more pronounced than among females, which

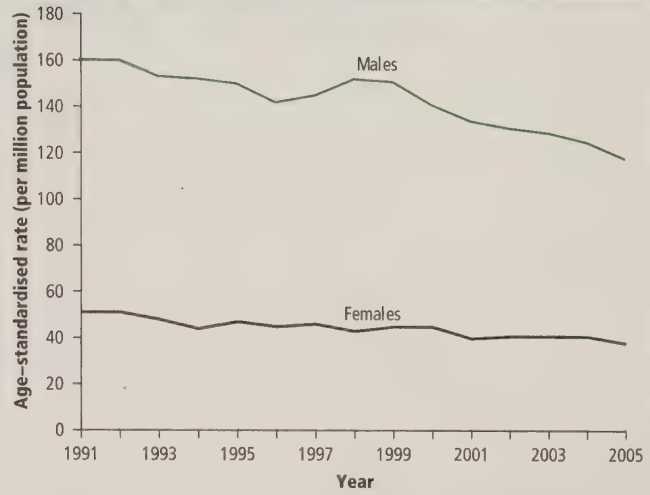
Figure 4 Age-standardised rates[1] for cancer of the breast (female) and prostate (per million population), 1991–2005



1. These rates are standardised to the European Standard Population; they allow comparisons between populations with different age structures.

Note: The Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10) came into operation in 2001. There were also further changes in the way ONS interpreted Rule 3 in 1984 and 1992, which affected the coding of underlying cause of death. The impacts of these changes are discussed in references 2, 3, 6, 9–11 of this update.

Figure 5 Age-standardised rates[1] for suicide[2] (per million population), 1991–2005



1. These rates are standardised to the European Standard Population; they allow comparisons between populations with different age structures.
2. Includes events of undetermined intent.

Note: The Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10) came into operation in 2001. The impact of this change is discussed in references 2–4 of this update.

has remained relatively constant over the period, falling by just 3 per cent between 1991 and 2005. Of all cancer sites, this group now has the highest death rate for both men and women, superseding breast cancer among women for the first time.

Figure 4 shows how the mortality rates of two sex-specific cancers varied between 1991 and 2005. Breast cancer rates in women fell year on year over this period, resulting in an overall decrease of 29 per cent. The death rate for cancer of the prostate in men decreased by 16 per cent; this decrease was not constant, with small increases in some years interrupting the overall trend of a decreasing rate. The biggest such increase was in 2001, when the death rate increased by 5 per cent, largely due to the change to ICD-10 cause coding.[6]

Mortality rates from suicide fluctuated over the period 1991–2005 (Figure 5). Male rates were around three times those for females throughout this period. The rate for males fell from 160 per million population in 1991 to 142 per million in 1996. It then rose to 152 per million in 1998, before decreasing by 22 per cent to 118 per million in 2005. The rate for females varied relatively little over the period compared with the male rate. The overall change in the female rate between 1991 and 2005 was a decrease from 51 per million population to 38 per million (25 per cent), although there were some small temporary increases in the rate during this time.

Mortality by age for selected causes

Mortality rates by cause of death vary with age (Table 2). In 2005, rates for people aged 15–29 were highest for deaths due to injury and poisoning (34 per 100,000 population for men and 10 per 100,000 for women). For those aged 30–44, the main cause of death was different for men and women. Injury and poisoning remained the leading cause of death for men (40 per 100,000 population), while cancers were the leading cause of death for women (31 per 100,000 population).

Table 2 Age-specific rates for selected causes of death (per 100,000 population), 2005

	0–14[1]	15–29	30–44	45–64	65–84	85 and over
Males						
Cancers	3	5	22	229	1,336	3,240
Circulatory diseases	1	4	27	198	1,537	6,801
Respiratory diseases	2	1	5	43	545	3,464
Injury and poisoning	3	34	40	37	63	333
All causes	27	59	132	612	4,017	17,163
Females						
Cancers	2	5	31	209	901	1,792
Circulatory diseases	1	2	11	73	1,061	6,233
Respiratory diseases	2	1	3	29	417	2,745
Injury and poisoning	2	10	11	15	47	319
All causes	20	27	77	393	2,957	15,267

1. The rates for the 0–14 age group do not include deaths at ages under 28 days (neonatal deaths).

Cancers were the leading cause of death among both men and women aged 45–64, with mortality rates of 229 per 100,000 for men and 209 per 100,000 for women. For people aged 65–84, circulatory diseases were the leading cause of death for both men and women, although rates for all the causes shown in the table were higher than those at younger ages. The all causes mortality rate for men aged 85 and over was four times that for men aged 65–84, while for women the rate for those aged 85 and over was five times that for women aged 65–84. Circulatory diseases were the leading cause of death in this oldest age group, followed by respiratory diseases and cancers.

Background notes

Population estimates for mid-2005 were published on 24 August 2006. Revised population estimates for 2004 were published on 20 December 2005. Population estimates for mid-2003, and revised estimates for mid-2001 and mid-2002, were published on 9 September 2004. Revised estimates for 1992 to 2000 were published on 7 October 2004. These population estimates were the most up-to-date when preparing the annual reference volume[1] and have been used for calculating mortality rates in this update. Further information on population estimates, and their methodology, can be found on the National Statistics website.[12]

The age-standardised rates referred to in the 'Cause of death' section of this update are based on the European Standard Population, which is a hypothetical population. These rates allow for changes in the age structure of the population, and so comparisons can be made between sexes, causes and over time. The figures represent the rate that would have occurred if the observed age-specific rates had applied in this standard population.

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1. Office for National Statistics (2006) *Mortality statistics: cause 2005*, series DH2 no. 32, at: www.statistics.gov.uk/statbase/product.asp?vlnk=618.
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3. Office for National Statistics (2002), Report: Results of the ICD-10 bridge coding study, England and Wales, 1999. *Health Statistics Quarterly* **14**, 75–83.
4. Griffiths C and Rooney C (2003) The effect of the introduction of ICD-10 on trends in mortality from injury and poisoning in England and Wales. *Health Statistics Quarterly* **19**, 10–21.
5. Griffiths C, Brock A and Rooney C (2004) The impact of introducing ICD-10 on trends in mortality from circulatory diseases in England and Wales. *Health Statistics Quarterly* **22**, 14–20.
6. Brock A, Griffiths C and Rooney C (2004) The effect of the introduction of ICD-10 on cancer mortality trends in England and Wales. *Health Statistics Quarterly* **23**, 7–17.
7. Brock A, Griffiths C and Rooney C (2006) The impact of introducing ICD-10 on analysis of respiratory mortality trends in England and Wales. *Health Statistics Quarterly* **29**.
8. Office of Population Censuses and Surveys (1983) *Mortality statistics: comparison of 8th and 9th Revisions of the International Classification of Diseases, 1978 (sample)*, series DH1 no. 10, HMSO: London.
9. Between 1 January 1984 and 31 December 1992, ONS applied its own interpretation of the ICD Rule 3 in the coding of deaths where terminal events and other 'modes of dying' such as cardiac arrest, cardiac failure, certain thrombembolic disorders, and unspecified pneumonia and bronchopneumonia, were stated by the certifier to be the underlying cause of death and other major pathology appeared on the certificate. In these cases ONS Rule 3 allowed the terminal event to be considered a direct sequel to the major pathology and that primary condition was selected as the underlying cause of death. Prior to 1984 and between 1 January 1993 and 31 December 2000, such certificates were coded to the terminal event.
10. Office of Population Censuses and Surveys (1985) *Mortality statistics: cause,* series DH2 no.11, HMSO: London.
11. Rooney C and Devis T (1996). Mortality trends by cause of death in England and Wales, 1980–94: the impact of introducing automated cause coding and related changes in 1993. *Population Trends* **86**, 29–35.
12. National Statistics website: www.statistics.gov.uk/popest.

Annual Update:

Congenital anomaly statistics: notifications, 2005, England and Wales

Introduction

The National Congenital Anomaly System (NCAS) was set up in 1964 to monitor the occurrence of congenital anomalies in England and Wales. Reporting to the system is voluntary. Both live births and stillbirths are included, but pregnancies ending in an abortion are not. The main purpose of NCAS is public health surveillance, but the system also provides the only national data on the number of children born with congenital anomalies. The system is maintained by the Office for National Statistics.

ONS receives data from two sources: electronically from local congenital anomaly registers for the areas covered by a register, and on paper SD56 forms directly from NHS Trusts in areas without a local register.[1] ONS currently receives data from eight local registers covering all births in Wales and 45 per cent of births in England (Box One).

The local registers ascertain cases of congenital anomalies from multiple sources including SD56 forms from NHS Trusts, and information from cytogenetic laboratories, neonatal units, and other hospital and community child health services. Cases can be added to NCAS at any time.

It is recognised that there is under-reporting in NCAS, particularly in the areas not covered by local registers.[2,3] Table 1 shows the numbers and rates of notifications from 1995 to 2005 for England and Wales, the area covered by each local register, and the rest of England. Notification rates for areas now covered by local registers all increased as the registers came into operation; for example, the rate in Wales was 153.9 per 10,000 live and stillbirths in 1997 and rose to 425.3 per 10,000 in 1998, when the Welsh register began submitting data to NCAS.

A recent study compared ascertainment of anomalies on NCAS with data on four local English congenital anomaly registers, for births that occurred during the period 1991–1999.[2] This was before those local registers started submitting data to NCAS. The overall ascertainment by NCAS was 40 per cent; ascertainment rates by condition varied from 12 per cent for cardiac defects to 75 per cent for cleft lip. The issue of under-reporting in areas not covered by registers in NCAS was also acknowledged in the Chief Medical Officer for England's Annual Reports for 2004 and 2005.[4,5]

Notifications in 2005

There were 6,938 children born in 2005 notified to NCAS (Table 1). Of these, 5,444 (78 per cent) were born to mothers resident in an area covered by a local congenital anomaly register. The notification rate for these register areas was 174.4 notifications per 10,000 live and stillbirths, a fall of 7 per cent compared to the rate in 2004 (187.5 per 10,000 live and stillbirths). The notification rate for the parts of England not covered by a local register was much lower; 44.3 notifications per 10,000 live and stillbirths in 2005. The fall in notification rates between 2004 and 2005 was larger in the non-register areas (17 per cent).

Table 1 also shows trends in the numbers and rates of notification over the last 11 years. The rate in register areas rose dramatically during the late 1990s as more registers began sending data electronically to ONS. The rate rose slightly overall in non-register areas during this period; since 2000 it has fallen by over 50 per cent, from a peak of 94.1 per 10,000 live and stillbirths to 44.3 per 10,000 live and stillbirths in 2005. The notification rate for register areas in 2005 was over three times the rate in non-register areas.

A comparison of notification rates across registers shows that Wales had the highest notification rate in 2005 (235.9 notifications per 10,000 live and stillbirths) and Wessex the lowest (113.8 per 10,000 live and stillbirths).

Box one

Local registers exchanging data electronically with ONS

Year register began sending data	Register
1998	Welsh Congenital Anomaly Register and Information Service (CARIS)
1999	East Midlands and South Yorkshire Congenital Anomaly Register
2000	North Thames (West) Congenital Malformation Register[1]
2000	Merseyside and Cheshire Congenital Anomaly Survey
2002	Wessex Antenatally Detected Anomalies Register (WANDA)[1]
2002	Congenital Anomaly Register for Oxfordshire, Berkshire & Buckinghamshire (CAROBB) (Oxfordshire only prior to 2004)
2003	Northern Congenital Abnormality Register (NorCas)
2003	South West Congenital Anomaly Register

Area coverage of each local congenital anomaly register. Areas are health authorities (1995–2001) and strategic health authorities (2002–2005) unless otherwise stated.
Boundaries used are those in existence at the time.

East Midlands & South Yorkshire congenital anomaly register comprises of Derbyshire, Leicestershire, Lincolnshire, Northamptonshire (since 2003), Nottinghamshire, South Yorkshire, South Humber (1995-2001), North Lincolnshire PCT (2002 onwards), North East Lincolnshire PCT (2002 onwards).

North Thames (West) comprises Bedfordshire, Hertfordshire, Hillingdon, Barnet, Ealing, Hammersmith and Hounslow, Kensington, Chelsea and Westminster, Brent and Harrow.

Merseyside comprises Cheshire and Mersey.

Oxford comprises Oxfordshire, Berkshire (2004) and Buckinghamshire (2004).

Wessex comprises Hampshire, Isle of Wight, Dorset, Salisbury LA (1995–2001), South Wiltshire PCT (2002 onwards).

Northern comprises Northumberland, Tyne and Wear, County Durham, Tees Valley, North Cumbria (1995–2001), Carlisle PCT (2002 onwards), Eden Valley PCT (2002 onwards), West Cumbria PCT (2002 onwards). South West comprises Avon, Cornwall, Devon, Gloucestershire, Somerset, Wiltshire excluding – Salisbury LA (1995–2001)/South Wiltshire PCT (2002 onwards).

Table 1 **Congenital anomaly notifications, numbers and rates from registers participating in electronic data transfer, 1995–2005**

	Number of babies notified to the National Congenital Anomaly System (NCAS)										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
England and Wales	5,859	5,985	5,963	6,678	7,986	8,460	7,864	7,811	8,116	7,578	6,938
Wales	539	610	534	**1,430**	**1,380**	**1,415**	**1,296**	**1,311**	**1,259**	**1,120**	**773**
East Midlands & South Yorkshire	712	708	816	706	**1,654**	**1,585**	**1,691**	**1,614**	**1,230**	**1,140**	**1,214**
North Thames (West)	320	280	281	318	331	**513**	**546**	**453**	**515**	**601**	**765**
Merseyside	279	239	216	209	238	**649**	**485**	**372**	**396**	**385**	**367**
Oxford	39	40	31	38	44	75	30	**71**	**78**	**264**	**332**
Wessex	228	220	228	190	223	189	208	**367**	**329**	**344**	**316**
Northern	317	341	306	287	314	278	233	305	**649**	**623**	**539**
South West	429	455	442	440	667	567	454	397	**1,201**	**1,321**	**1,138**
Rest of England	2,996	3,092	3,109	3,060	3,135	3,189	2,921	2,921	2,459	1,780	1,494
	Rates per 10,000 live and stillbirths										
England and Wales	90.0	91.7	92.3	104.5	127.8	139.3	131.6	130.3	129.9	117.8	106.9
Wales	155.5	174.0	153.9	**425.3**	**427.7**	**449.9**	**421.2**	**431.7**	**398.9**	**344.5**	**235.9**
East Midlands & South Yorkshire	113.9	115.5	136.3	118.6	**288.0**	**285.4**	**311.4**	**295.6**	**191.2**	**171.8**	**180.3**
North Thames (West)	64.8	56.0	56.4	63.8	66.8	**104.5**	**112.1**	**91.8**	**100.8**	**114.8**	**143.7**
Merseyside	96.9	82.3	77.2	76.0	89.6	**250.8**	**193.2**	**150.4**	**153.4**	**145.5**	**138.5**
Oxford	53.4	54.6	41.2	50.8	59.6	103.6	42.5	**102.3**	**104.5**	**95.2**	**119.9**
Wessex	77.7	75.1	79.2	66.0	80.4	70.6	80.0	**141.3**	**122.1**	**124.1**	**113.8**
Northern	92.3	100.7	92.5	89.1	100.9	93.3	80.2	103.8	**214.0**	**199.6**	**170.5**
South West	92.3	97.3	95.1	95.9	149.3	132.6	109.0	93.9	**272.3**	**294.8**	**251.6**
Rest of England	83.6	85.9	86.9	86.4	90.0	94.1	87.2	87.0	71.6	53.3	44.3

Source: National Congenital Anomaly System at 5th September 2006.
Note: Data in bold indicate the years that the registers have been sending data to NCAS.

* These registers are hospital based. Denominators use area boundaries which are not necessarily exact matches to the areas covered by the registers.

Condition-specific notification rates

There were substantial differences in condition-specific notification rates between areas now covered by local registers and those without a register (Tables 2 and 3 respectively).

The largest difference was for cardiovascular anomalies, where the rate for areas covered by a register in 2005 was over 9 times that for areas without a register (40.0 notifications per 10,000 live and stillbirths compared with 4.4 per 10,000 live and stillbirths). Cardiovascular anomalies are not readily apparent at birth and so may not be notified by a doctor or midwife on a SD56 form.[2] The local registers identify anomalies which become evident later in the child's life via alternative sources. Therefore as more registers began sending data to ONS during the late 1990s and early 2000s, the notification rate for these anomalies in areas covered by registers increased from 12.9 notifications per 10,000 in 1995 to 40.0 per 10,000 in 2005.

Cleft lip is a congenital anomaly which is highly visible at birth.[2] For this reason notifications to NCAS could be expected to be reasonably complete even for areas not covered by a local register. Between 1995 and 2002 the notification rate for areas covered by a local register fluctuated between 5.3 and 7.5 notifications per 10,000 live and stillbirths. The corresponding rate for areas not covered by a local register was similar at between 5.2 and 6.7 notifications per 10,000 live and stillbirths. Since 2002 the rate for areas covered by a local register

Table 2 Congenital anomaly notifications, selected conditions, 1995–2005

England and Wales: Register areas[1]

Numbers and rates[2]

	1995		1996		1997		1998		1999		2000		2001		2002		2003		2004		2005	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All babies notified	2,863	97.8	2,893	98.8	2,854	99.0	3,618	127.0	4,851	175.3	5,271	196.3	4,943	188.2	4,890	185.5	5,657	200.9	5,798	187.5	5,444	174.4
Babies with a mention of:																						
Central nervous system	117	4.0	117	4.0	112	3.9	176	6.2	218	7.9	259	9.6	238	9.1	302	11.5	276	9.8	344	11.1	274	8.8
Anencephalus	13	*0.4*	10	*0.3*	13	*0.5*	8	*0.3*	8	*0.3*	13	*0.5*	10	*0.4*	18	0.7	19	*0.7*	16	*0.5*	15	*0.5*
Spina bifida	32	1.1	24	0.8	24	0.8	32	1.1	29	1.0	45	1.7	29	1.1	44	1.7	40	1.4	53	1.7	34	1.1
Hydrocephalus	32	1.1	37	1.3	32	1.1	44	1.5	41	1.5	69	2.6	49	1.9	56	2.1	54	1.9	61	2.0	59	1.9
Cleft lip with or without cleft palate	177	6.0	190	6.5	170	5.9	151	5.3	197	7.1	187	7.0	197	7.5	180	6.8	213	7.6	240	7.8	231	7.4
Cleft palate	109	3.7	74	2.5	84	2.9	96	3.4	108	3.9	113	4.2	118	4.5	117	4.4	110	3.9	130	4.2	154	4.9
Cardiovascular anomalies	378	12.9	433	14.8	411	14.3	704	24.7	834	30.1	1,112	41.4	1,004	38.2	1,009	38.3	1,343	47.7	1,282	41.5	1,249	40.0
Hypospadias and epispadias	236	8.1	258	8.8	220	7.6	253	8.9	351	12.7	348	13.0	348	13.2	302	11.5	365	13.0	364	11.8	391	12.5
Limb reductions	90	3.1	89	3.0	61	2.1	90	3.2	126	4.6	111	4.1	110	4.2	102	3.9	116	4.1	150	4.9	131	4.2
Deformities of feet	386	13.2	296	10.1	314	10.9	329	11.5	460	16.6	435	16.2	453	17.2	380	14.4	395	14.0	389	12.6	389	12.5
Down syndrome	147	5.0	174	5.9	213	7.4	230	8.1	241	8.7	228	8.5	234	8.9	205	7.8	272	9.7	364	11.8	348	11.1
Gastroschisis	46	1.6	49	1.7	43	1.5	51	1.8	71	2.6	73	2.7	62	2.4	64	2.4	91	3.2	151	4.9	99	3.2

1. See Box One for details of areas covered by a local register.
2. Notification rate per 10,000 live and stillbirths.

Rates calculated from less than 20 anomalies are distinguished by italic type as a warning to the user that their reliability as a measure may be affected by the small number of events.

Table 3 Congenital anomaly notifications, selected conditions, 1995–2005

England and Wales: Non register areas[1]

Numbers and rates[2]

	1995		1996		1997		1998		1999		2000		2001		2002		2003		2004		2005	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All babies notified	2,996	83.6	3,092	85.9	3,109	86.9	3,060	86.4	3,135	90.0	3,189	94.1	2,921	87.2	2,921	87.0	2,459	71.6	1,780	53.3	1,494	44.3
Babies with a mention of:																						
Central nervous system	145	4.0	142	3.9	109	3.0	140	4.0	114	3.3	152	4.5	140	4.2	133	4.0	130	3.8	86	2.6	93	2.8
Anencephalus	22	0.6	17	*0.5*	14	*0.4*	14	*0.4*	15	*0.4*	13	*0.4*	17	*0.5*	13	*0.4*	14	*0.4*	9	*0.3*	10	*0.3*
Spina bifida	44	1.2	37	1.0	24	0.7	30	0.8	30	0.9	37	1.1	30	0.9	31	0.9	41	1.2	25	0.7	22	0.7
Hydrocephalus	37	1.0	38	1.1	32	0.9	42	1.2	26	0.7	37	1.1	39	1.2	26	0.8	33	1.0	17	0.5	22	0.7
Cleft lip with or without cleft palate	216	6.0	230	6.4	209	5.8	238	6.7	206	5.9	206	6.1	174	5.2	184	5.5	146	4.3	117	3.5	93	2.8
Cleft palate	90	2.5	94	2.6	118	3.3	110	3.1	91	2.6	102	3.0	85	2.5	89	2.7	80	2.3	54	1.6	52	1.5
Cardiovascular anomalies	232	6.5	247	6.9	252	7.0	232	6.6	267	7.7	325	9.6	278	8.3	282	8.4	195	5.7	159	4.8	148	4.4
Hypospadias and epispadias	265	7.4	281	7.8	264	7.4	311	8.8	266	7.6	300	8.9	283	8.5	253	7.5	194	5.7	146	4.4	111	3.3
Limb reductions	102	2.8	112	3.1	76	2.1	111	3.1	85	2.4	95	2.8	84	2.5	80	2.4	77	2.2	61	1.8	44	1.3
Deformities of feet	332	9.3	333	9.3	336	9.4	323	9.1	360	10.3	356	10.5	281	8.4	326	9.7	263	7.7	192	5.7	176	5.2
Down syndrome	173	4.8	183	5.1	199	5.6	227	6.4	185	5.3	186	5.5	147	4.4	153	4.6	132	3.8	111	3.3	105	3.1
Gastroschisis	44	1.2	49	1.4	47	1.3	53	1.5	51	1.5	46	1.4	52	1.6	52	1.5	40	1.2	45	1.3	29	0.9

1. See Box One for details of areas covered by a local register.
2. Notification rate per 10,000 live and stillbirths.

Rates calculated from less than 20 anomalies are distinguished by italic type as a warning to the user that their reliability as a measure may be affected by the small number of events.

has remained stable, at just over seven notifications per 10,000 live and stillbirths. In contrast the notification rate in non-register areas has fallen, reaching 2.8 notifications per 10,000 in 2005.

Another very visible anomaly, deformities of the feet, also showed a sharp fall in notification rates in non-register areas over this period, from 9.7 per 10,000 live and stillbirths in 2002 to 5.2 per 10,000 in 2005. The corresponding fall in areas covered by registers was much smaller (from 14.4 notifications per 10,000 live and stillbirths in 2002 to 12.5 per 10,000 in 2005). The size of these differences between rates for register and non-register areas for very visible conditions suggests that the completeness of reporting to NCAS in the non-register areas is worsening.

It is possible that the decrease in notification rates since 2002 may partly be due to the implementation in some areas, starting in October 2002, of a new system for allocating NHS Numbers for babies at birth (NN4B). The NN4B data set can record whether a baby was born with a congenital anomaly, but not the type of anomaly. The effect of this issue on the level of reporting to NCAS is unknown.

Other patterns in the data from local congenital anomaly registers only

Congenital anomaly notification rates are highest amongst children of mothers over 40 years old. In areas covered by congenital anomaly registers the notification rate in 2005 for mothers under 20 years old was 178.2 per 10,000 live and stillbirths. Mothers aged 30–34 had the lowest notification rate (159.2 notifications per 10,000 live and stillbirths) and those aged over 40 years the highest (237.5 per 10,000).

Notification rates are also higher for children who are part of multiple births. In areas covered by local registers the notification rate for children who were part of a multiple birth in 2005 was 224.0 per 10,000 live and stillbirths, compared with 157.4 per 10,000 for singletons. (These figures exclude data for the South West where 25 per cent of records on the database at the time of analysis did not state whether the notification was part of a multiple birth).

Research[6] linking congenital anomaly notifications to birth registrations between 1997 and 2001 showed that 14 per cent of birth registrations classified as part of a multiple birth were not recorded as such on their congenital anomaly registration. Only 2 per cent of registrations which were singleton births were not recorded as such on NCAS. It is not known whether this systematic bias in NCAS notifications still exists; if so the notification rate for multiple births is likely to be an underestimate.

Key findings

- 6,938 children born in 2005 were notified to the National Congenital Anomaly System as having one or more congenital anomalies.
- The notification rate for the 48 per cent of all births in England and Wales covered by local congenital anomaly registers was 174.4 per 10,000 live and stillbirths, compared with 44.3 per 10,000 in areas without local registers.
- The notification rate for cardiovascular anomalies in areas covered by local registers was over 9 times the rate in areas without a local register.
- Between 1995 and 2002 the notification rate for cleft lip was similar in register and non-register areas. Since then the rate in areas without a local register has fallen by 50 per cent, from 5.5 per 10,000 live and stillbirths in 2002 to 2.8 per 10,000 in 2005, while the rate in areas covered by local registers has remained fairly constant. This suggests a deterioration in the completeness of reporting to NCAS in non-register areas in recent years.

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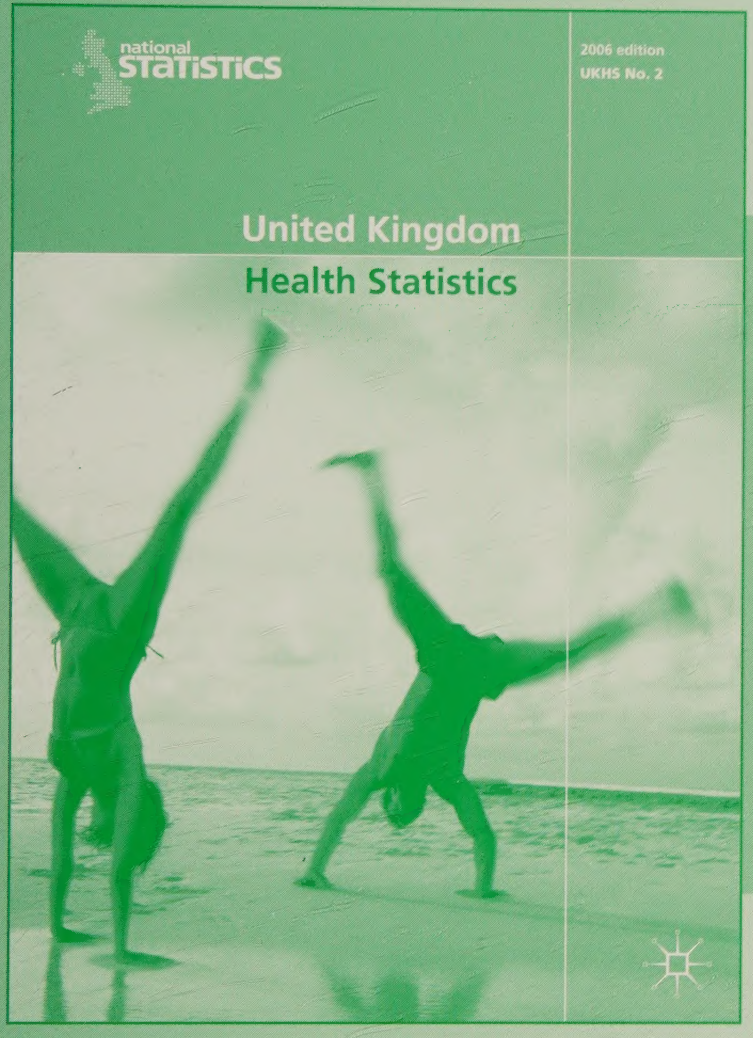

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